EXHIBIT 9

In the Matter Of:

K.C., ET AL

-v-

INDIVIDUAL MEMBERS OF MEDICAL LICENSING BOARD OF INDIANA, ET AL

Dan H. Karasic, M.D.

May 18, 2023

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

K.C., et al.,)
)
Plaintiffs,)
)
-v-) CASE NO.
) 1:23-cv-00595-JPH-KMB
THE INDIVIDUAL MEMBERS OF)
THE MEDICAL LICENSING BOARD)
OF INDIANA, in their official)
capacities, et al.,)
)
Defendants.)

The deposition upon oral examination of DAN H. KARASIC, M.D., a witness produced and remotely sworn before me, Debbi S. Austin, RMR, CRR, Notary Public in and for the County of Hendricks, State of Indiana, taken on behalf of the Defendants via Zoom videoconference on May 18, 2023, at 12:00 p.m., pursuant to the Federal Rules of Civil Procedure.

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THE REPORTER: My name is Debbi Austin, an associate of Stewart Richardson & Associates, One Indiana Square, Suite 2425, Indianapolis, Indiana. Today's date is May 18, 2023. The time is 12:00 p.m. Eastern Standard Time. This deposition is being held via Zoom videoconference. The deponent is Dan H. Karasic, M.D.

Will counsel please identify themselves and any persons present with you for the record.

MR. STRANGIO: Yes. Good morning. This is Chase Strangio from the ACLU, here with the witness, on behalf of the plaintiffs. With me on Zoom are Harper Seldin, also with the ACLU, and Ken Falk and Gavin Rose from ACLU of Indiana.

MR. FISHER: This is Tom Fisher with the Indiana Attorney General's office. With me on Zoom is Melinda Holmes. With me, in my office, is our law clerk, John Vastag.

DAN H. KARASIC, M.D.,

having been first duly sworn to tell the truth, the whole truth, and nothing but the truth, was examined and testified as follows:

EXAMINATION

BY MR. FISHER:

Q Well, good afternoon. Or good morning, I guess,

for you, Doctor. My name is Tom Fisher. I'm the Deputy Attorney General, and I'll be taking your deposition today.

MR. FISHER: So let's mark our first exhibit, which is Defendant's Notice of Deposition.

(Deposition Exhibit 1 marked.)

Q Doctor, do you recognize this document?

A Yes.

Q What do you understand this document to be?

A It's a notice that I'm being deposed.

Q And it's in response to this notice that we are having this deposition today?

A Yes.

Q Is there any reason that you cannot give full and complete testimony today?

A No.

Q Have you ever given a deposition before?

A Yes.

Q So you know basically how it works. I think just a couple of housekeeping items. The main one is I'm going to assume that you understand my questions. If you don't, please don't hesitate to say something and we'll clear it up the best we can. So that's, I think, the main one I wanted to advise you about.

But I think, otherwise, let's talk a little bit about --

MR. FISHER: Well, let's go ahead and mark Exhibit 2. We'll get that out of the way.

(Deposition Exhibit 2 marked.)

Q This is the complaint in the case.

MR. FISHER: Chase, by the way, do you have a full set of the exhibits?

MR. STRANGIO: I have access to the exhibits. I haven't printed them, so we will be using the -- I have printed some of them, the ones that we used the other day, but not all of them. So we'll use this method. But we can instruct about zooming and such.

MR. FISHER: Yeah, that's fine.

MR. STRANGIO: And one thing, just for the record, that the doctor has in front of him is his final declaration. So that is before him.

MR. FISHER: Okay, great. Thank you.

BY MR. FISHER:

Q Doctor --

MR. FISHER: If we could scroll down just a little bit -- I'm sorry, Shawn. Scroll down just a little bit. Okay, there we go.

Q Doctor, have you seen this document before?

A Yes.

Q What do you understand this document to be?

A This is the complaint in response to the Indiana statute on gender-affirming care for minors.

Q And this is the complaint in the case pursuant to which you are here to testify today; correct?

A Yes.

Q And have you read this document in its entirety before?

A Yes.

MR. FISHER: All right. Let's go ahead and mark Exhibit 3, Senate Enrolled Act 480.

(Deposition Exhibit 3 marked.)

Q Doctor, have you seen this document before?

A Yes.

Q What do you understand it to be?

A I understand that this is an Indiana statute that prohibits or limits gender-affirming care for minors.

Q And have you read this statute in its entirety?

A Yes.

Q So tell me what you have reviewed today in preparation for this deposition.

A I reviewed my declaration and the documents that you've shown me.

Q Anything else?
A Well, I have -- I had a review of literature in various cases that I've -- that I've done, but not so much in response particularly to this for this deposition.
Q Other than your lawyers, have you spoken to anyone about the deposition today?
A No.
Q So tell me, Doctor, let's just start with your background.
What is your current position?
A I'm professor emeritus of psychiatry at UCSF.
Q How long have you had emeritus status?
A Since 2020.
Q And what was your position before you took emeritus status?
A I was a health sciences clinical professor of psychiatry at UCSF for the preceding 29 years.
Q I infer from that position that you had a clinical practice during that period as well?
A Yes.
MR. STRANGIO: Object to form.
A Yes.
Q Do you maintain a clinical practice now?
A Yes.

Q Is it a full-time clinical practice or a part-time clinical practice?
A I am seeing patients about halftime.
Q Before you took emeritus status, was your clinical practice devoted entirely to individuals with gender dysphoria or was it a more general practice?
MR. STRANGIO: Object to form.
A I had initially came to UCSF in 1991, focusing on people with HIV and AIDS. But then since the 1990s, I've also been seeing transgender people who've been kind of, over the 30 years, more of a focus of the patients that I saw in the various kind of clinical programs I was involved in.
Q Any other categories of psychiatric illnesses that you had a focus on?
MR. STRANGIO: Object to form.
A Well, within initially the people with HIV and transgender people, of course people have, you know, every sort of psychiatric illness. In my current private practice, I do see some cisgender patients. Not all of my patients are transgender.
Q So in your current practice, do you have a sense for roughly what percentage of your patients are there with issues related to gender dysphoria?
A Yes. At some point, I looked a while back, and it

was about two-thirds are people who are transgender or, you know, are coming for issues related to gender dysphoria.
Q And of that group, what percent are under the age of 18?
A So again, when I looked, it was about a third, a third, a third: About a third cisgender people who were mostly adults; about a third transgender minors; and about a third transgender adults.
Q Within the group of minors, what about minors -- the percentage, rough percentages of those who had reached Tanner stage 2 versus those who had not?
A All of them. I only see patients who are 12 and older.
Q What have been your areas of focus for research and writing?
A So first I have done some research related to people with HIV, including for a time, part of my time was NIH funding, studying depression in that population. And then over the years also the care of transgender people and the clinical care that's being provided.
Q Has prepubertal biological development ever been an area of research for you?
MR. STRANGIO: Object to form.

A Not in terms of any published work. Of course, I have an awareness of the research going back to my training at UCLA. I was there at the same time Richard Green was there who published the first longitudinal study on feminine boys.
MR. FISHER: So let's go ahead and mark Exhibit 4, which is the expert declaration of Dr. Karasic.
(Deposition Exhibit 4 marked.)
Q Doctor, does this document look familiar to you?
A Yes.
Q Can you tell us what it is, please.
A It's my expert declaration for this case.
MR. FISHER: Okay. So I think, Shawn, if he could just scroll through it. I just want the doctor to see that the entire declaration is here, along with his CV and list of publications.
It's a little bit long. I just want to make -- it's just this presentation method gives us limited viewing capability. Go ahead and keep scrolling. Let's scroll all the way to page 19.
Q Doctor, is that your signature on page 19?
A Yes.
Q Is there anything about this declaration that is no longer accurate?

A Not that -- oh, one thing. Since this declaration was filed, under the depositions and trials, I testified in Dekker versus Weida in Tallahassee just last week.

Q Great. Thank you.

Anything else?

A No.

Q All right.

MR. FISHER: Shawn, let's scroll to the next page of that exhibit, please. Stop there.

Q Doctor, do you -- this is a part of the same exhibit, but is this the first page of your CV?

A Yes.

Q I don't want to take the time to have to scroll through the whole thing.

MR. FISHER: So Shawn -- or sorry, Chase, you should have the entire thing in your file of documents. And so I just want to stipulate, if we can, that this is the doctor's CV and list of publications that he attached to his declaration.

MR. STRANGIO: Yes, that's accurate. And just to clarify, the CV and then the bibliography.

MR. FISHER: Yes, thank you.

Q So I think -- thank you for mentioning that.

MR. FISHER: I think -- I do want to turn to

that bibliography, which is Exhibit B to the -- to that declaration. Oh, there it is. It's several pages in. It's after the CV, at the end of the -- the last four or five pages of the document.

Q All right. So Doctor, this is the Exhibit B that Mr. Strangio mentioned just a minute ago?

A Yes.

Q Are these the materials that you relied on in preparing your report?

A Yes. I mean, I relied on my, you know, kind of broader understanding of the literature, but in particular these papers.

Q Are all of these papers scientific peer reviewed sources?

MR. STRANGIO: Object to form.

A Some are policy statements of various organizations, some of them that are showing up right now.

Q So not everything in this list is peer reviewed; correct?

A So I think some of the policy statements might not be peer reviewed, but rather the policy statements of the -- like position statement of an organization.

Q Okay. How did you decide what to include in

Exhibit B?

A There are references related to statements I made in my declaration. That's predominantly. And then -- and some of them were -- there is some that were papers I've relied on in other recent declarations, I think, as well.

Q All right. I want to start a conversation at a little higher level of generality as we kind of work our way into these issues. And my first question in that regard for you is, what is sex?

MR. STRANGIO: Object to form.

A So sex has a number of different meanings. Do you want to specify when you're referring to a definition of sex, what you -- which of those meanings you are referring to?

Q I guess I'm referring to the meaning that, you know, the way that we think about sex in science. Does that help?

MR. STRANGIO: Object to form.

A So sex has different meanings. It can refer to sexual intercourse. It can refer to sex assigned at birth, the sex that's on someone's birth certificate.

Sorry, the lights just went out in here. That's good, it's a motion detector.

So the sex that the physician or other provider delivering a baby might put on the birth certificate based on the appearance of external genitalia.

Q Is there such a thing as a human male genotype?

MR. STRANGIO: Object to form.

A So there is -- again, there is included in that question, you're referring to male, I think, that one can refer to the typical genotype of someone assigned male at birth.

Q What is that genotype?

A Well, chromosomally, that -- again, typically, chromosomally that includes a Y chromosome. But there are also people who are assigned male at birth who lack that, but certainly it's -- you know, it is often referred in that way because that is typical.

Q What percent of cases do humans assigned male at birth lack that male genotype, that XY genotype?

MR. STRANGIO: Objection.

A It's certainly uncommon, and that's why I say typical.

Q Do you have a sense of the percentage?

A So again, there is some ambiguity in referring to a male genotype because there's both intersex people

and then there are also people who identify as male later in life who have a different genotype. But typically -- you know, and that's why I say typically, it's, you know, having a Y chromosome.

Q And then I want to, just for sake of completeness, ask about the human female genotype. Is there such a thing?

MR. STRANGIO: Object to form.

A So again, typically it's referring to someone with two X chromosomes. There are a small number of people, for example, with complete androgen insensitivity that could be XY but phenotypically, you know, appear female. And so -- and there are people who identify as female later in life. But typically it's referring to someone with two X chromosomes.

Q You used the term "phenotypically." Did I hear that right?

A Phenotypically as opposed to geno- -- you know, the external appearance related to the chromosomes.

Q Well, that's -- yeah, that was what I was wondering is what the distinction was. But that sounds like a good way to describe it.

What about for other mammals, are there two distinct genotypes?

MR. STRANGIO: Object to form.

A So again, it's my understanding, certainly, that there are, you know, similar genotypes in other mammals.

Q So I just want to -- I came across a statement by some authors at the Endocrine Society. Are you familiar with the Endocrine Society?

A Yes.

Q And this is a statement that I'll represent to you made by authors Bhargava, Arnold, Bangasser, and others. And I'll read it to you. My only question is whether you agree with it or not.

They say, "All mammals have two distinct sexes."

So let's start there. Do you agree with that statement?

MR. STRANGIO: Object to form.

A I'm not really an expert on animals, so I think I might confine my commentary to people about, you know, for example, intersex phenomenon in animals or other phenomenon.

Q So maybe you just misheard me. I just want to make sure you didn't mishear me. All mammals have two distinct sexes. Are you comfortable answering that question?

MR. STRANGIO: Object to form.

A Again, I think I'll limit my testimony to humans. But as I said, it is my impression that there are similar processes in other mammals.

I would -- when we're talking about the Endocrine Society and the kind of biological sex terms, the Endocrine Society has also, in Hembree, expressed caution about the term "biological sex," because it can have different meanings. So but -- I'm sorry, but go on.

Q I'm going to read the rest of the statement. And again, I'm just looking for you to tell me if you agree with it.

In quote, "In mammals numerous sexual traits, (gonads, genitalia, et cetera) that typically differ in males and females are tightly linked to each other."

Do you agree with that statement?

MR. STRANGIO: Object to form.

A You know, I'm certainly not going to disagree with that statement, but at the same time, I'm not an expert on equivalent phenomenon. And certainly when we're talking about gender identity, that is something that, you know, we can't, you know, glean from animals. So there are some differences, but,

you know, I'm not going to -- I'm not going to disagree, but also limit my expertise to humans.

Q So let's -- you said that gender identity is not -- information or learning, perhaps, about gender identity is not something we can glean from animals. I don't mean to misquote you. Is that functionally what you're saying?

MR. STRANGIO: Object to form.

A Yes.

Q Okay. Why not?

A Well, I like to think that I can talk to my dog, but, you know, our communication is limited. And so, you know, there's a component of communication I think that is necessary.

Q Well, is that the only reason, the lack of ability to communicate with the animals?

MR. STRANGIO: Object to form.

A You know, again, I'm not an expert on gender -- sex and gender in animals, and so I don't -- I'm not sure I can answer that.

Q Why is the communication aspect so important?

MR. STRANGIO: Object to form.

A Well, I do think that that is a way that we -- that humans learn about each other.

Q Can someone detect a newborn baby's phenotype and

likely genotype without talking to the baby?

A So usually sometimes, for example -- again, using the example of complete androgen insensitivity, it's not talking to the baby, but one might have difficulty, you know, at birth, you know, until or unless, you know, further tests are run.

Q What tests?

A Well, for complete androgen insensitivity, the person has XY chromosomes but appears female, and very often people don't know, you know, that they have XY chromosomes until they get -- you know, fertility testing or pediatric examination, you know, after puberty.

Q But to understand, then, if I'm following you, somebody with a female phenotype might actually have a male genotype, and the way to discover that is to test the chromosomes, see what they say?

MR. STRANGIO: Object to form.

A Yes. I mean, that would, you know, indicate that, you know, in this case the person has XY chromosomes, and then presumably they do further testing to show that there's this insensitivity of their cells to, say, androgens.

Q And are those tests -- do those tests require, you know, in and of themselves communication with the

patient? And by that, I mean other than communication to set up the test. I mean the conduct of the test, the understanding of the test, is that done with communication with the patient or some other way?

MR. STRANGIO: Object to form.

A Well, there's lab tests, but the patient still comes in and gives a history that might lead the doctor to, you know, suspect that there might be, in this case, complete androgen insensitivity to -- you know, to run those tests.

Q But the tests themselves are not -- the communication with the patient is not part of the tests themselves?

A Well, we learn in medical school that the history you take from a patient is extremely important. Often it's the most important thing. And so in this case, the doctor would suspect by history and, therefore, order the testing.

Q Yeah, okay. But aside from that circumstance, aside from that type of case that you've described, we can otherwise know without talking to a newborn baby, for example, what its phenotype is and very likely what its genotype is?

MR. STRANGIO: Object to form.

A So in this newborn baby we can predict that most of the time their gender matches their sex assigned at birth, but we also know that's not always the case.

Q I'm not asking about gender. I'm only talking about genotype and phenotype. You can know the newborn baby's phenotype and very likely its genotype without talking to the baby; correct?

MR. STRANGIO: Object to form.

A So you -- there are certainly aspects of phenotype in terms of appearance of genitalia and, you know, genotypes in terms of likelihood of XX or XY chromosomes.

Q But to learn about gender identity, we have to have a conversation with the person?

MR. STRANGIO: Object to form.

A Well, there are parents who have children where they believe that they had some knowledge of the child had a different gender identity from very early on, but you would need to be able to communicate with the person, you know, eventually to be able to confirm, you know, if there is some difference from their peers in terms of gender identity.

Q So parents who presumably know their children best among anybody are unable without hearing it from

the child to determine the child's gender identity?

MR. STRANGIO: Object to form.

A Well, there are some parents who say that based on a child's behavior that they suspected a cross-gender gender identity before their child was able to be able to communicate that verbally. For example, strong insistence on behaviors associated with the other gender.

Q But does that tell us with a high degree of certainty what the child's gender identity is if there has been no conversation with the child about that?

A Well, when you say "us," you mean a healthcare professional?

Q Just in general. Yeah, that's fine. Can the parents know with certainty based on what they observe without hearing it from the child what the gender identity is?

MR. STRANGIO: Object to form.

A Right. There -- they would need to also hear it from the child, but, you know, it's not unusual to hear a story of, you know, the parents believing that they knew before the child in those circumstances where the cross-sex behavior, cross-gender behavior started very early.

Q Well, what about as a clinician, can you know without the child telling you what the child's gender identity is?

A So no, as a clinician, I would need to be able to communicate with the child.

Q So what is gender identity?

A So gender identity is a -- it's often defined as a deeply felt sense of being male, female, or another gender.

Q What's the difference between sex and gender identity?

A So sex, again, can have different meanings, as we talked about, and gender, if we're referring to gender identity, refers to that deeply felt sense of being male or female or another gender.

Q So let's go to paragraph 27 on page 6 of your declaration.

MR. FISHER: So Shawn, that should be the same document, just scroll way up to page 6 of the --

A I'm sorry, what page did you say?

Q It's page 6, paragraph 27.

A Okay.

Q Here I think you're talking in your declaration about -- about sex and about gender identity. And it looks like the third sentence, it says, "Aside from external genital characteristics, chromosomes, and endogenous hormones, other factors related to sex include gonads, gender identity, and variations in brain structure and function."

Do you see that sentence?

A Yes.

Q What -- I'm trying to understand how those -- all of those, what do you call them, factors, relate together and whether one of them or which of them dominate an analysis of somebody's -- of understanding what somebody's sex is.

MR. STRANGIO: Object to form.

A So again, it -- I refer back, for example, from the Endocrine Society, Hembree's statement of that -- suggesting that biologic sex is -- was not their kind of preferred term because there are different factors that relate to someone's sex. And so these are some different factors that relate to someone's sex.

MR. FISHER: Shawn, can we make that a little bit bigger on the screen, please. Thank you. My eyes are getting really bad.

Q All right. So I guess I want to give you -- I'm trying to understand again how these fit together. So let me ask this a slightly different way. If someone has the phenotype and genotype of a male, but as a matter of gender identity says, I'm a female, what sex is that person?

MR. STRANGIO: Object to form.

A Well, again, as said there, people use sex and gender in different ways and, you know, very often people refer to sex as the sex assigned at birth. But that, you know, is not the totality of the term.

Q I guess I'm wondering if gender identity has to do with an internal sense and if other factors of sex have to do with objective facts like genotype and phenotype observable phenomena, why doesn't it make sense to just maintain that there's sex and -- on the one hand, and then gender identity on the other hand?

MR. STRANGIO: Object to form.

A Again, you know, I'm -- I certainly use the term "sex" in terms of sex assigned at birth because I think that is, you know, an easily understandable term.

Q What is the use of sex in your -- I think the way you would put it, sex assigned at birth, of what scientific use is that determination?

MR. STRANGIO: Object to form.

A Well, it certainly has implications in many ways in terms of, you know, appearance of external genitalia, for one. In terms of, you know, that it's only a minority of people that have a gender identity that's different from their sex assigned at birth. So, you know, it does -- it can be useful, you know, in my practice as a descriptor.

Q How do you determine one's -- and then here I'm going to -- let's look at paragraph 28 because I was about to quote from it.

MR. FISHER: So right below there, Shawn.

Q And it's the first sentence. And you're quoting -- it looks like you're quoting something from the American Psychological Association. But it says, "Gender identity is a person's deep felt, inherent sense of being a girl, woman, or female; a man, or male; a blend of male or female; [or another] gender." And the "or another" is in brackets, but that's -- those are your brackets, I guess.

So I guess my first question is, how do you determine one's internal sense as you were -- deep felt, I guess, in that sentence, inherent -- yeah, deep felt, inherent sense of -- how do you determine what that is for a person?

A So are you asking how a clinician determines that?

Q That's right. That's right.
A Okay. So in my role as a clinician, I am particularly concerned about whether there's gender dysphoria, where there's distress that needs to be treated, and certainly part of the history that I would take from a patient is about, you know, their expression of their gender identity.
Q And so what are you looking for to determine what that person's deep felt, inherent sense of being a girl, et cetera, is?
MR. STRANGIO: Object to form.
A So I would certainly be communicating with the patient that is -- you know, is something I do as a psychiatrist. And taking a history from a patient, observing the patient. So those are all things that happen, you know, when I'm seeing any patient.
Q So does a person say, Doctor, I have a deep felt, inherent sense of being a -- if a person assigned male at birth comes in and says, Doctor, I have a deep felt, inherent sense of being a girl, is -- do you say, okay, then your gender identity is that you are a girl and that's it, or do you ask follow-up questions?
MR. STRANGIO: Object to form.
A I always ask follow-up questions. You know, I'm

respectful of what a patient says, but I also, you know, engage in conversation with the patient.
Q What follow-up questions do you ask?
A Well, my focus would be about kind of a developmental history in terms of their awareness of having a gender identity different from their peers as well as if they have distress because really kind of a focus for treatment is having a DSM-5 diagnosis of gender dysphoria.
Q Well, aside from distress, you know, I understand that that's important for gender dysphoria. I'm just trying to, first of all, cover gender identity, and I'm wondering at what point you are satisfied that this person has accurately asserted their gender identity.
MR. STRANGIO: Object to form.
A So, you know, people come to me and can tell me how they identify. But again, that's not what I'm treating. So if you're talking about as a psychiatrist, I'm looking for, you know, disorders to be treated, you know, as the APA says, the diagnosis is in the distress. That might -- that could be related to gender identity.
Q But does gender identity exist if it's -- for somebody who identifies differently than their

peer, and I'm just trying to use your terminology here, you know, does that gender identity exist? Does it have meaning apart from whatever distress they might be feeling?
MR. STRANGIO: Object to form.
A Yes.
Q And then -- and so I'm just trying to understand. I would think that -- and I don't mean to tell you, you know, this is how it has to be done. I'm just trying to -- I'm still trying to understand. I would have thought that the first step in trying to get to the DSM diagnosis is, let's first understand this person's gender identity. Is that an inaccurate way to look at it?
MR. STRANGIO: Object to form.
A So having an understanding of their gender identity certainly is important. There are -- as a psychiatrist, there are people who have, you know, varying gender identities who might not be coming to me for gender dysphoria, might not be having distress about that, but rather having panic attacks and are, you know -- kind of are looking for treatment that's focused on panic attacks, for example.
So that's what I'm saying in terms of if

somebody is coming in -- presenting to me, I'm trying to assess what are the clinical issues that I might help them with.
Q Do any observable conditions exist to confirm someone's gender identity?
MR. STRANGIO: Object to form.
A So sometimes one gets some sense from observation, but certainly the most important thing about one's gender identity is what -- is what someone communicates to me or to another person.
Q What is the error rate for assessing someone's gender identity?
MR. STRANGIO: Object to form.
A So can you explain the question?
Q Well, when we were talking about newborns and you were explaining that sometimes the observed phenotype doesn't actually match the genotype, and I think you allowed it's very rare -- I don't mean to put words in your mouth, but very rare that they wouldn't match, but sometimes they do -- and so someone might say, you know, the error rate for assessing genotype upon mere observation of phenotype is, you know, X percent, whatever that is.
And I'm wondering, similarly, when you're

talking about gender identity, what is the error rate -- if someone tells you what their gender identity is, what is the error rate of that assessment?

MR. STRANGIO: Object to form.

A So because someone's gender identity itself isn't a diagnosis, I don't think that -- that that's something that is studied. There has been some study about making a gender dysphoria diagnosis, for example. And just a little bit of research on that. And when we're talking about making a gender dysphoria diagnosis, the symptoms are so distinct from other diagnoses that it would be very unusual to mix that up with something else.

Q Well, is there an established error rate for diagnosing gender dysphoria?

MR. STRANGIO: Object to form.

A So as I said, there's only a little bit of research. There was a little study when the Dutch group, a big gender dysphoria research group was -- did a little study to see whether people were as likely to make a correct diagnosis of the new ICD 11 gender incongruence diagnosis versus gender dysphoria versus transsexualism and ICD 10, and they found that -- they did videotaped interviews

and things like that that people -- there was a, you know, very high likelihood that people watching those would make the correct diagnosis.

But it's not -- outside of that, I'm not aware of other research in terms of inaccuracy in the diagnosis.

Q In that research that you're discussing, how was -- I guess I'm wondering how the diagnosis was measured to be accurate or inaccurate. What was the standard?

A Well, they were looking at really kind of whether it was consistent so that if -- at least that's my understanding of that, that they were -- they had the -- using the different criteria for making a diagnosis if there was kind of consistency in -- and again, and this was in adults, I believe, when they did this for the gender incongruence diagnosis versus these older diagnostic schemes.

Q So --

A There's not a lot of -- it's not something that -- that's just the one thing I could think of where anyone has tried to, you know, do some kind of assessment of diagnostic criteria and are they useful.

Q Well, I'm wondering if you think this is an area that needs further study.

MR. STRANGIO: Object to form.

A No, because again, the symptoms are so distinct. So as a psychiatrist, people very often come to me, not just because they have gender dysphoria, but because they have the whole range of psychiatric illnesses, and the symptoms of gender dysphoria are distinct from those. It's not like people confusing dysthymia with major depressive disorder. There's not, you know, kind of a subtlety to the difference between the gender dysphoria diagnosis and another DSM-5 diagnosis.

Q Well, even so, would it be possible to study the error rate of gender dysphoria diagnosis?

MR. STRANGIO: Object to form.

A So, you know, as I said, the Dutch tried to look at whether -- in kind of a validation study of the gender incongruence diagnosis, whether, you know, people -- different clinicians would, you know, make the diagnosis of whether that was kind of consistent and whether that was similar to older diagnoses.

I'm not sure if there's utility except for in kind of specific circumstances. I assume when the APA changed its diagnoses, that they did kind of

some similar kind of, you know, studies to -- on kind of the utility where people, different clinicians, you know, making the same diagnosis and the same -- with given the same clinical presentation.

Q Are you suggesting that it's impossible to misdiagnose someone with gender dysphoria?

MR. STRANGIO: Object to form.

A I'm not saying it's impossible, but -- but in my experience, the symptoms are pretty distinct and, you know, certainly Standards of Care 8, for example, says one should, you know, rule out other diagnoses. And I think whenever we make a diagnosis we have, you know, the realm of diagnoses in our head. But in my experience, making this diagnosis -- the symptoms of this diagnosis are more distinct from others, and so -- I think I answered the question.

Q Any other psychiatric conditions that you deal with in your clinical work for which there's no error rate?

MR. STRANGIO: Object to form.

A So just error rate is not a measure that we typically use in -- so I'm not sure how to answer the question.

Q Well, when you go to diagnose somebody with a psychiatric illness or you're considering whether somebody has a given psychiatric illness, do you ever run a battery of tests to help you make that assessment?

MR. STRANGIO: Object to form.

A So usually it is we do a clinical interview and a mental status examination the way we do for any DSM diagnosis.

Q Are those just random questions or are those questions that have been proven to be useful?

A So when I'm making -- when we make diagnoses, you know, as a psychiatrist, you know, I went to medical school and then did four years of psychiatric residency training and -- you know, and then had 30 years of -- more than 30 years of practice after that. And so -- but certainly we're trained to make diagnoses.

Q Okay. Are you trained to use tools that work in making those diagnoses?

MR. STRANGIO: Object to form.

A So I -- yes. We're trained on the clinical interview and the mental status exam and knowledge of the DSM and our clinical experience to -- to make diagnoses and certainly very often our

patients are seen by other clinicians as well, and that's certainly especially true when we're in training. And so there is a process to hone one's making a diagnosis.

We then have -- we have licensure boards. I had to do oral boards where we interviewed live patients in front of a panel of psychiatrists in order to -- and, you know, to give diagnosis or differential diagnosis. And that was all necessary to become a board certified psychiatrist.

MR. STRANGIO: Just checking to see -- we've been going about an hour. I just want to see if you have a good breaking point coming up.

MR. FISHER: I do. Just let me get through a couple more, okay?

MR. STRANGIO: Sounds good.

Q So, Doctor, I'm just wondering, do psychiatrists never worry about whether some diagnostic tool that they're using might yield a false positive in some circumstance?

MR. STRANGIO: Object to form.

A Well, there -- you know, I can think of -- when we're thinking in terms of tools of either, for example, a screening test, a screening test would show that it's -- that somebody might be likely to

have a diagnosis. But to make the actual diagnosis, we still need to do the clinical interview and the mental status examination.

Q Is there -- and there's no concern that upon doing the clinical interview and that examination that you might have an inaccurate diagnosis?

MR. STRANGIO: Object to form.

A Again, I feel like I have a good sense when I make that diagnosis, you know, as I get to know a patient that it is the correct diagnosis, and in my clinical experience, you know, I can't think of an example where I made a diagnosis of gender dysphoria and then later thought, oh, that was a mistake.

Q Well, I'm talking about anything. I'm not just talking about gender dysphoria. I just mean in general.

A In general, it -- certainly there are times where it's possible. For example, someone can make a diagnosis of major depressive disorder, and the patient, as it turns out, has had perhaps hypomanic episodes that they didn't express, they didn't remember, and so the person might actually have bipolar disorder type 2 depressed, but on initial interview, one might think that it's major

depressive disorder. You know, and later maybe perhaps come to find out they have bipolar disorder type 2.

Q Okay. In that circumstance, with that initial interview, looking at major depressive disorder, what is the error rate?

MR. STRANGIO: Object to form.

A Well, the thing about bipolar disorder is people do have major depressive episodes as part of the disorder. So you're actually accurate in diagnosing that they're having major depressive episodes. What you might miss in the history is that at some point in the past, even the distant past, they've had a hypomanic episode or more than one, but simply don't remember it. And so, you know, they might not tell us even when we ask about that. But then at some later point, they get those symptoms again, and then they might even connect to having had those symptoms in the past.

Q Okay. So I'll put it another way then. That in that interview, for purposes of detecting those hypomanic episodes or bipolar disorder, what is the error rate?

MR. STRANGIO: Object to form.

A So I can't say I know. I think that it's certainly

been -- there certainly have been studies that some people don't get diagnosed with bipolar disorder type 2 until they've been treated for major depression. What share of people that is, I do not know.

Q Do you think it's important to know that that phenomenon exists where they aren't diagnosed right away and sometimes it comes up later?

A So for bipolar disorder, yes. And when I'm seeing a patient, you know, I would counsel them that if -- you know, if they have any symptoms of mood elevation to let me know because sometimes people do have undiagnosed bipolar disorder type 2.

MR. FISHER: All right. Let's go ahead and take our break now.

MR. STRANGIO: All right.

MR. FISHER: Five minutes, please. Thanks.

MR. STRANGIO: Yeah, five minutes is great.

(Recess taken.)

MR. FISHER: Shawn, let's pull the declaration back up on the screen. This is Exhibit 4. Still at paragraph 28.

BY MR. FISHER:

Q Doctor, in this paragraph you say -- and this is still the first sentence, you talk about gender

identity being deep felt, inherent sense of being a girl, woman, female, man, male, blend of male or female, or another gender.

And I'm wondering what other genders besides male, female, or a mix of male/female that you have observed or that you know about.

MR. STRANGIO: Object to form.

A So many people identify as nonbinary, and they may have other names that they give to that nonbinary identity. But I would say that one could -- can clarify many of the people who don't identify as male or female as nonbinary.

Q What does that mean, nonbinary?

A So it's making reference to the binary of male and female. And so indicating that there are some people who don't identify as male or female in a binary sense. They might have an identity that has aspects of each, for example. But -- and there are people who -- who have that identity of nonbinary.

Q But I take it from the way you've drafted this sentence that you think that that is different from somebody who has a blend of male and female?

A Well, the sentence I was quoting on the American Psychological Association's definition from 2015.

Q Yes.

A And so that's the wording, was just by quoting a source.

Q Do you think that nonbinary is separate from a blend of male or female, or do you think that that's really kind of the same thing?

MR. STRANGIO: Object to form.

A So, you know, language is always changing, not just for -- as it relates to gender. And I think that it's certainly very common to refer to the people who don't have an identity as strictly male or female as nonbinary.

Q Well, I'm trying to -- I guess I'm still trying to understand. What is it about those people that makes them nonbinary? Do they reject the idea of male and female in total?

MR. STRANGIO: Object to form.

A So they may not -- they may feel that their gender identity is different from their sex assigned at birth but that the other binary gender doesn't fully feel like a fit as well, and they could have gender dysphoria but not necessarily a desire to transition to the -- you know, the other gender in a binary way.

Q I see. So is there -- how do such people present themselves?

MR. STRANGIO: Object to form.

A So for -- if you're saying presenting to a psychiatrist, people present to me seeking treatment, and that could relate to gender dysphoria. It could relate to depression or anxiety or other psychiatric illnesses, but they might tell me that their gender identity is nonbinary and they might have some explanation of the process that they went through to kind of realize that that was the best fit for them.

Q And earlier you mentioned, I think, that such people -- I don't mean to kind of overstate the categorization -- but sometimes will not want to go through a gender transition even though they don't have an identity that aligns with their assigned sex at birth. Is that a fair statement of what you said?

MR. STRANGIO: Object to form.

A So sometimes they don't want to transition in a binary way, so sometimes they don't -- they're not seeking medication or surgery. There are some times where people have sought to address the fact that they're having some dysphoria about their body without kind of a fully binary transition in terms of hormones or surgery.

Q Okay. But somebody who's binary, I take it, but has a gender identity different from the sex assigned at birth, is more likely to want to go through those hormonal transitions?

MR. STRANGIO: Object to form.

A Overall that's true, right. There are some nonbinary people who are seeking medical or surgical care to transition, but it is more common in people with a binary transgender identity.

Q So a person who, I don't know -- I'm wondering about what a -- and maybe -- I'm sure it's not the same for all of them, but a person who wants to transition, so let's say a natal male who wants to transition to female, typically what is that person distressed about and looking to achieve, I guess, to relieve that distress?

MR. STRANGIO: Object to form.

A So someone may have distress about aspects of the social role of being male or being perceived as male by other people. They may have distress about aspects of their body that they perceive as appearing masculine or that other people might perceive as being masculine. But the degree of dysphoria about their body can vary from individual to individual and what they -- and, you know, what

they're interested in in terms of medical or surgical care.

Q Are they distressed about their -- the reproductive role of their birth-assigned sex?

MR. STRANGIO: Object to form.

Q And let me be more concrete. Is that -- are they distressed, for example, like in this natal male that I'm hypothesizing, does it ever occur that a natal male is distressed about not being able to have a baby?

MR. STRANGIO: Object to form.

A So can you explain the question a little bit more for me?

Q Well, you've talked about how the person might be distressed about appearance to others and might be distressed about having body parts, genitalia, et cetera, that appear masculine, and so we've talked about that aspect of it. And I'm wondering if it goes any further. You know, perhaps a natal male wants to appear to be what we typically associate with females in terms of body shape or body appearance, but I'm wondering if it goes deeper. Does it go as far as saying, boy, I feel like I'm a female because I want to be able to have a baby?

MR. STRANGIO: Object to form.

A So, you know, I do -- I know that there have been, you know, a few people who've been, you know, interested in the small literature around uterine transplant which has been done on some cisgender women who want not just to have a baby using a surrogate womb, but to want to have that experience themselves in their own -- having a baby from their own womb. So, you know, that is an experience that some -- I think some cisgender women and some transgender women have. It's not something that is that commonly expressed to me by my patients that, you know, a desire for childbirth.

Q Well, what do you tell patients when that is a desire that's expressed?

MR. STRANGIO: Object to form.

A So I think patients know that that isn't something that is readily available even -- even though they may have, you know, read about, you know, some research, mostly in other countries where there have been some -- you know, some babies born after uterine transplant. But it's not a common kind of topic of discussion.

Q So, but it's part -- for those people that presented or that mention it, it's part of their

gender dysphoria; right?

MR. STRANGIO: Object to form.

A So again, I mean, I'm trying to think of have I had a conversation where someone has come to me and is seeking that? And the answer is no, but have people thought about it? I'm sure people have when, you know, there have been these news reports about uterine transplant. So, you know, it's a phenomenon out there. It's not something that I recall being expressed to me by my patients.

Q Okay. So you've not heard of somebody -- a trans woman expressing as part of gender dysphoria the desire to have a baby?

MR. STRANGIO: Object to form.

A So I'm trying to recall if I've had that conversation with a patient. And off the top of my head, I can't recall having that conversation with a patient.

Q So what else about when a trans woman says, I feel like, you know, I have this internal sense that I'm female, what else do they mean by that besides you've mentioned things about, for example, discomfort with body parts or body shape, and I'm wondering if there's anything else.

MR. STRANGIO: Object to form.

A So in addition to discomfort about body parts or body shape, there can be discomfort about how they're perceived by others.

Q Can you explain that further? What do you mean, that discomfort -- what do you mean by that sort of discomfort?

A So it can be discomfort if -- let's say if the person is a trans woman, if someone identifies them as a gender other than female, that can be uncomfortable, both from a safety perspective, but also because they -- you know, the person has a desire to be recognized by others as female.

Q Do you explore with them the source of that desire and what that desire means to them?

MR. STRANGIO: Object to form.

A Can you rephrase the question?

Q Well, I'm wondering, when someone says, I have a desire for people to recognize me as a gender that's not aligned with my sex assigned at birth, do you try to figure out what that means to them, why they have that desire and what the source of that is or what -- you know, what it is they're looking for with that -- to have that desire fulfilled?

A Well, I think if somebody has a particular gender

identity, and this is true whether someone's cisgender or transgender, that you want other people to, you know, treat you in a way consistent with your identity. So I don't look at that as, you know, something that is hard to understand.

Q I can imagine this comes up with pronouns, but I'm wondering if it comes up in other contexts too. How might they be treated in a way that's not consistent with their gender identity?

MR. STRANGIO: Object to form.

A So someone might be transitioning and go to a restaurant and not be identified by the staff at the restaurant as a gender which they identify, and that could be uncomfortable. There's certainly people who've, you know, faced violence or discrimination because they were recognized by others as transgender or not the gender in which they identify. So it certainly is something that can -- has the potential for causing distress.

Q Okay. Can one's gender identity change over time?

A So one's kind of understanding of one's gender identity sometimes can evolve, and in particular there are some people who identify as transgender in a more binary way, and later they identify in a more nonbinary way, and that can happen kind of the

other way around as well, where people still have the sense that their gender is different from their peers, but might take some time to kind of fully kind of figure out what that is.

Q Is there a difference between one's gender identity and one's understanding of one's gender identity?

MR. STRANGIO: Object to form.

A Well, I would say in a historical sense that sometimes when -- when I've seen patients over time that they've had some fluctuation in the words that they use to describe their gender identity, but their gender identity throughout the process has remained different from cisgender peers. So that's why sometimes one could -- can say one's kind of understanding, you know, might change as they're maybe kind of recognizing what's the best fit for them.

Q So I want to try to understand this a little better. Again, we'll go back to our natal male who identifies as female and it's a binary understanding, it's just the sex other than the one assigned at birth. But later that person says, well, now I see things more nonbinary, okay. So I'm wondering, when that person identified as female, was that just a misunderstanding or was

that person's gender identity female?

MR. STRANGIO: Object to form.

A Well, you know, I view my job as making a diagnosis when somebody has a DSM diagnosis of gender dysphoria and not kind of labeling whether in, you know, someone's kind of process of development whether -- you know, what they've -- how they've, you know, described their gender identity, you know, whether that is what it was or not. So if somebody -- if somebody tells me that they identified in a binary way and then later in a nonbinary way, it could just come to their perception of the identity that seems most comfortable to them, and that might take a little bit of time to kind of establish that.

Q Okay. In paragraph 28, it says -- I think you say here -- you say that "Gender identity is not subject to voluntary change."

And so I'm wondering what you mean by that.

A So if there is this -- this kind of underlying longstanding sense of identity, and some of my patients have not wanted to identify that way and others have had parents who haven't wanted them to identify that way. So there have been people who have undergone conversion therapy and really had a

desire not to be transgender, and yet they weren't able to, even working with a therapist, you know, change their being transgender or change that they had gender dysphoria.

Q Well, you say -- you use the term "voluntary," and I'm inferring that it is subject to involuntary change. Is it subject to involuntary change, gender identity?

A No. I would say it's not something where someone can simply decide I'm not transgender, I'm not going to be transgender, and have the kind of underlying aspects of theirself that led them then to that point to just go away. There are -- I'm just -- I'm thinking in my clinical experience of patients who've kind of tried to will themselves not to be transgender and, for example, natal males who've gotten married, joined the Marines, you know, have done all of these things to -- you know, the most masculine things, sky-diving, and then, you know, came to the conclusion that none of those things made them not transgender, even though they desperately wanted to not be transgender.

Q Yeah, I understand that. I'm just wondering do you agree with the following statement: "Gender identity is subject to involuntary change"?

MR. STRANGIO: Object to form.

A I'm not quite sure even what that means. Do you mean can somebody force you to be a different gender identity?

Q No, involuntary doesn't necessarily mean forced. I'm just -- really just curious about your modifier "voluntary" here. You know, why say voluntary change. So I just want to clarify, do you think that gender identity is subject to involuntary change?

A So I think that, you know, you have a good point that I can look at that wording for my next declaration and hope to be more clear. But really, my sense is that what I'm referring to is really that clinical experience of patients who have tried really hard to not be transgender and it hasn't worked.

And the gender dysphoria has come back, the sense of not being themselves has remained, and so it's not something where people have succeeded by simply deciding they're not going to be transgender and they are going to do as many things as they can to try to reinforce not being transgender. You know, as I said, things like joining the military, they're getting married and having kids, and really

trying to lead a -- you know, what they perceive as a cisgender male life and hope that the, you know, identity will follow, and it hasn't worked.

Q And I understand all that. I just need an answer to the -- to whether you agree with the proposition that gender identity is subject to involuntary change.

A I mean, it's not subject to involuntary change. Do you mean is subject to -- I'm not quite sure what you're -- I'm sorry. I'm not quite sure what you're asking.

Q If we change the word -- okay, I'll just read this. And I just -- all I'm going to do is change the word voluntary -- in your declaration, change voluntary to involuntary. Gender identity is not subject to involuntary change; agree or disagree?

MR. STRANGIO: Object to form.

A So that's kind of a different meaning than what I was saying, because when I'm saying my -- when I was writing that, I was thinking about the scenarios I discussed with you. I think that people certainly can identify as transgender without -- in a way that's not voluntary in a sense in that it is just how they, you know, identify without it being a choice to identify as

transgender. So, but I'm not sure if that is what you're asking.

Q All I'm asking for is a yes or no answer. Gender identity is not subject to involuntary change; agree or disagree?

A So again, I don't know what that is referring to, so I don't think I -- you know, I gave the answer that I think kind of explains what I meant.

Q Okay. You say, "Gender identity is not a product of external influence." And again, this is still paragraph 28.

Does our understanding of what it means to be a girl or a boy or a man or a woman come from external influences?

MR. STRANGIO: Object to form.

A So there's an aspect of -- there is an aspect that reflects culture, but there also are some aspects that seem kind of pretty consistent, you know, even across cultures. So I suppose one could say it's not merely a product of external influence, but people do have ideas about being male and female that -- you know, that reflect males and females in society.

Q Are you aware of any data showing what percent of children with gender dysphoria have had recent

trauma -- let's just start there, what percentage have had a recent trauma, children with gender dysphoria who have had a recent trauma?

MR. STRANGIO: Object to form.

A Is there a particular paper that you're referring to?

Q I'm just asking if you're aware.

A And I would say no.

Q Are you aware of data showing what percent of children with gender dysphoria have a history of physical abuse?

MR. STRANGIO: Object to form.

A So there are surveys showing higher rates of transgender people having had a history of trauma which could include physical abuse.

Q Are you aware of data showing what percent of children with gender dysphoria have autism spectrum disorder?

MR. STRANGIO: Object to form.

A So the numbers vary, but it is clear that more -- that there are more people with autism spectrum disorder who are transgender and vice versa than one would expect, just from the general population.

Q Are you aware of any data showing the percent of children with gender dysphoria that have homosexual

orientation?

MR. STRANGIO: Object to form.

A So -- well, first of all, there can be confusion using the term "homosexual" because different people use sex assigned at birth versus the person's gender identity to -- as kind of the anchor point of whether it's same sex attraction or not.

Q Well, I guess using either measure, are you aware of any such data?

MR. STRANGIO: Object to form.

A Yes, there has been data on percentages of, for example, trans men who identify as being attracted to other men versus attracted to women versus attracted to both.

Q Are you aware of any data of the percentage of children with gender dysphoria that had a homosexual orientation prior to the diagnosis of transgender?

MR. STRANGIO: Object to --

Q Or I'm sorry, the conclusion of that being transgender.

A So we don't always -- so when we're -- if we're referring to children, that often is referring to prepubertal children, and very often they're --

prepubertal children differ in terms of when they might identify as a particular sexual orientation.

Q Yeah, I'm just wondering if you're aware of any data showing the percent of children with gender dysphoria who first had an identification as homosexual.

MR. STRANGIO: Object to form.

A So you're talking about a study of prepubertal children?

Q Sure, let's start with prepubertal. Are you aware of any such data?

A Can you explain to me what -- a little bit more of what you're referring to.

Q I'm only asking about whether you're aware of data of what percent of children with gender dysphoria had a previous identification of homosexual orientation.

MR. STRANGIO: Object to form.

A So as I said, typically when people are being -- children are -- young people are being asked about sexual orientation, it's after the onset of puberty because very often young children don't have a verbal sense of sexual orientation that they can express, at least at that time. They may well have one, but -- so I'm not quite sure of that.

Certainly there are, for example, trans men who had some period in development where -- where they, you know, recognized their attraction to women and questioned if that, you know, made them lesbian and at some point recognized then actually their identity was male and so they didn't have a lesbian identity.

But I think, you know, so there is a process of development that relates to both gender identity and sexual orientation and one's -- just one's development of an understanding of how those things apply to the individual.

Q If we shift the age cohort to post pubertal, does that narrow it down any more or cull to anything more specific in terms of data showing the percent of children with -- and minors, really, the post pubertal cohort, the percent diagnosed with gender dysphoria who previously identified with a homosexual orientation?

MR. STRANGIO: Object to form.

A So I can't tell you the numbers, but there are certainly people in their kind of development of an identity who might at one point -- their understanding of their identity might relate more to the sex of the people that they're attracted to

and at a later point might come to an understanding of transgender identity.

Q Doctor, do you know when the first teen gender clinic in the United States opened?

A So it may well be different from when you think because some people refer to Norm Spack's clinic at Boston Children's that brought the Dutch protocol for puberty blockers into more common practice in the U.S. in a multidisciplinary setting. But, in fact, the Dimensions Clinic for trans youth where I worked starting in 2003, but which had existed in some form since the 1990s, has been a clinic that provides care for adolescents and young adults age 12 to 25 and has done so since the 1990s.

Q The first clinic you spoke of, did you say Norm Spack?

A Yes. The Boston Children's GeMS clinic.

Q What year did that open?

A That would have been in the mid 2000s.

Q In your Dimensions Clinic, you said you've been providing gender care for adolescents since the 1990s?

A Yeah. I worked there since 2003, but the clinic actually started in the late 1990s.

Q Do you know specifically which year?

A I don't recall. But it had been around since then.

Q All right. Well, let's start with the year that you joined in 2003.

A All right.

Q And I'm wondering, in the first decade of your work at that clinic, 2003 to 2013, how many teens with gender dysphoria -- and I don't mean just in your clinic. Maybe I should be clearer about that. Nationally, how many teens with gender dysphoria -- were diagnosed with gender dysphoria 2003 to 2013?

MR. STRANGIO: I'll object to form.

A So I would say if you're talking about the DSM diagnosis, none, because the diagnosis didn't exist until 2013.

Q Okay. Well, before that there was a different diagnosis, not necessarily the same, but something that approximates it. What was it, gender identity disorder, is that the --

A Right, gender identity disorder, adolescents and adults.

Q So how many adolescents in that decade were diagnosed with gender identity disorder?

A So we don't have good numbers on that because at one time using that diagnosis could risk exclusion of reimbursement, and so we tended not to use that

diagnosis while it was a diagnosis that could cause insurance to not pay for treatment. So as a psychiatrist, you know, I might -- people were typically also seeing me for major depression or panic disorder or other psychiatric illnesses, and I would just list that. I would not list gender identity disorder diagnosis until it was clear that that was not going to mean that the billing for everything would be rejected.

Q So was there a point where they -- the diagnosis became, I guess, a more useful guide in this regard, where it was accepted by insurance companies?

MR. STRANGIO: Object to form.

A So yeah. I mean, I remember around when I was working with the San Francisco Department of Public Health around 2012 and we tried looking at the numbers within even Department of Public Health clinics, and we kind of couldn't tell from the electronic diagnoses that were made because even when it was clear that it wasn't an automatic rejection, people were so conditioned to avoiding that diagnosis that it took some time.

But once, in 2013, California MediCal made it clear that you couldn't discriminate against

insurance coverage by excluding the gender dysphoria diagnosis that had just become the diagnosis, that I think was around -- where there was -- you know, it started to be a sea change of people actually receiving the diagnosis.

Q I see. So let's go with 2013 to 2018, do you have a -- do you know how many teens nationally were diagnosed with gender dysphoria?

A So remembering that the exclusion was eliminated in California in 2013, but in other states it lasted longer, so we're looking at nationally there still might have been an avoidance of that diagnosis.

And the other thing is that there had to be someone to make the diagnosis. There had to be someone to make the diagnosis, so you had to have the clinics there nationally, and then they had to be making the diagnosis for the purpose of insurance reimbursement because the numbers that had been reported are -- we don't have the kind of comprehensive database of -- with our healthcare records, and so we're basing the numbers on claims for insurance reimbursement.

And so that that was relying on there being people to make the diagnosis and then there being insurance coverage to receive the diagnosis, and

those were things that were -- you know, had been developing through the 2010s.

Q Okay. So -- oh, sorry. I didn't mean to cut you off.

A Oh, I just said developing nationally. You know, some places more quickly than others.

Q Well, what about in -- just in California, is it useful to make, you know, an observation about the number of teens diagnosed with gender dysphoria 2013 to 2018?

MR. STRANGIO: Object to form.

A So there's utility to it, but -- you know, and it's clear the numbers increased greatly while the larger number of people who identified as transgender from population-based surveys did not change very much. And so what that's showing is that smaller percentage that had access to care to get a diagnosis and had insurance -- the possibility of insurance reimbursement to receive the diagnosis increased greatly in the 2010s.

Q Well, what about 2018 to 2023?

A So certainly in -- in California by 2018, the access to care, you know, was much better established, and that was probably true in some parts of the country as -- you know, as well.

Q Okay. So the numbers of teens diagnosed with gender dysphoria 2018 to 2023, do you have a -- really what I want to understand is a sense of whether it's been a constant number every year, whether the numbers have increased, first of all.

MR. STRANGIO: Object to form.

A So my understanding is numbers have increased but are still a smaller percentage than the people who identify as transgender, that the numbers are still less than 1 in a thousand, whereas numbers identifying as transgender are more like 0.5 to 0.7. And then some have -- you know, there have been some surveys that have been higher.

So it's not clear whether those numbers reflect more people identifying as transgender or more people who are accessing care.

Q What about the demographics, and really specifically I'm interested here in the ratio of male to female transition versus female to male, among gender dysphorics.

MR. STRANGIO: Object to form.

A So people identifying as female has been an increasing percentage in both the United States and internationally of people presenting for care. And there was some discussion at -- I went to a

presentation of the Dutch group's kind of follow-up data from their longitudinal studies of transgender people, on the streamline of cross-sectional studies of transgender people on data that was presented at the WPATH conference in Montreal last fall.

And there was -- there was kind of an interesting discussion about it where the -- someone from the Belgian team had talked about it in terms of there are more people assigned female at birth accessing care compared to a more stable ratio of people assigned male at birth and people assigned female at birth. And so it may be that -- that the availability of care might affect this still minority of people with transgender identity who are seeking gender-affirming medical care.

Q Did that data or any other data tell you anything about the -- kind of the age cohort of those natal females transitioning to male and whether that had shifted either -- you know, in any direction from, say, prepubertal to post pubertal?

A So people are not getting gender-affirming care prepubertal. Gender-affirming care starts -- you know, at its earliest can start at the beginning of puberty and, you know, some people don't access

care or aren't able to access care until, you know, later in adolescence.

Q Yeah, I'm just wondering about if you see any change over time among the cohort, the female to male cohort and the age at which they're getting gender-affirming care.

MR. STRANGIO: Object to form.

A So one thing that was interesting that in that particular discussion is the Dutch, in presenting their data, showed that the gender ratio applied -- of people seeking care that had been trending towards more people assigned female at birth, that that ratio applied to adults, people seeking care for the first time as adults, as well as those in adolescence.

So it may be more, you know, of a sense that people -- maybe an adult can access care. Again, it's -- you know, the people accessing care are just the subset of this larger number who identify as transgender.

MR. FISHER: Okay. I think this is a good time for the next break, if that's okay.

MR. STRANGIO: Yeah, that works for us.

MR. FISHER: All right. We'll take five. Thank you.

(Recess taken.)
BY MR. FISHER:
Q Let's mark our next exhibit as Exhibit 5.
MR. FISHER: And Shawn, this might be one that's out of order because I'm -- just given the amount of time, we're going to move ahead a little bit. So this is -- it says WPATH and Standards of Care on the front of it.
(Deposition Exhibit 5 marked.)
Q Doctor, do you recognize this document?
A Yes, that is the WPATH Standards of Care, Version 7, the old version from -- well, released in 2011 and published in 2012.
Q Okay. Is this -- do you use this version in your practice?
A Well, I'm certainly familiar with this version as one of the authors, but -- and sometimes insurance companies still refer to things in Standards of Care 7, but really, last year's Standards of Care 8 came out, and that really are the current practice guidelines.
Q Is either the Version 7 or the Version 8 a peer reviewed publication?
MR. STRANGIO: Object to form.
A So the Standards of Care 8 are not -- well, they

are published in a journal. They are reviewed in a different kind of process by many experts in the field in the development of the standards of care, but it's a different process than somebody, let's say, you know, submitting a paper to a journal.
Q Would you -- is it accurate to say that it's a peer reviewed document?
MR. STRANGIO: Object to form.
A Again, I'm not sure if that phrase applies to it, but it certainly -- everything in it was subject to a tremendous amount of review, certainly greatly more than any, you know, single paper that's submitted to a journal.
And I'm talking specifically about the process around Standards of Care 8 that was released last year.
Q What about the process for Standards of Care 7?
A Well, Standards of Care 7, that was 2011. There also was -- it was a different process. There was peer review in the sense that once there was a draft that each of the 34 authors made comments and corrections. But I think it's maybe, you know, more applicable now, you know, to talk about the Standards of Care 8 process because that's the one that we're using now.

Q Is there anything in Standards of Care 8 that you disagree with?
MR. STRANGIO: Object to form.
A So when -- as part of the Standards of Care 8, there was a Delphi process in which each statement came up for approval by everyone on the Standards of 8 [sic] committee and where people voted levels of approval or disapproval of the statement and made suggestions for improvement. So certainly in that process there were statements I disagreed with and I -- you know, like every other person who was reviewing that, you know, ranked it, you know, gave it kind of approval/disapproval score and also made suggestions.
I felt that by the end of the process that -- that I felt, you know, comfortable with much of it, but there are chapters that I don't really use so much, so I might have a harder time kind of defending those. It's a big document. And I tend to, you know, focus on the assessment chapters and the mental health chapters, for example.
Q Okay. I think we do have -- I have just found -- figured out where I put SOC 8. So let's bring that up.
MR. FISHER: Shawn, I think it's the document

that's listed at No. 20 on the list that you've got. If we could bring that up and mark it as Exhibit 6.
(Deposition Exhibit 6 marked.)
Q Doctor, is this WPATH Standards of Care version 6 -- I'm sorry, Version 8?
A Yes, this is Version 8.
Q This is Version 8. Okay, great.
So I guess I'm -- just another way to ask it, are you aware of anything in Version 8 that you disagree with?
A I'm sure that there are things there in that I don't -- you know, there are the parts of it that I use a lot, the assessment chapters and the mental health chapters. And there are parts that I don't. And so, you know, I certainly -- you know, I have agreement with the process of developing it, but I'm sure that there are individual statements within the Standards of Care 8 that, you know, I might not -- might not, you know, reflect my views.
Q Which statements?
A I can't -- again, I'm not going to name them. I feel like generally the ones that I use, which are the -- particularly the assessment chapters, there's a section on medical necessity that I

sometimes use, and the mental health chapter, that those, you know, I think I'm in general agreement with. There were a bunch of other chapters, you know, that I might use as a reference, but I'm not -- you know, for a particular issue, you know, but I'm not as -- you know, I'm not using all the time, so I -- you could certainly ask me if there's a particular statement and if I agree with it or not, but --

MR. FISHER: Well, Shawn, let's turn to the table of contents. It looks like it's got page 54 up in the top left corner. No, you're too far down. It's only three or four pages in from the top. There we go, one more. There it is. There we go.

Q So Doctor, I'm looking at Chapter 9. It says, "Eunuchs."

Do you see that?

A Yes.

Q Now, my understanding is that this chapter did not appear in SOC 7 but made its first appearance now in SOC 8.

Am I right about that?

A Yes.

Q Do you agree with the addition of the -- of Chapter 9 on eunuchs?

A You know, I might have included it with the nonbinary chapter, but, you know, or elsewhere, as opposed to a separate chapter. But I was not -- you know, the editors made that decision. You know, I think it's useful to have, you know, information about eunuchs as well as others, you know, in there. I don't know if it merited its own chapter.

Q Do you consider eunuchs to be transgender?

MR. STRANGIO: Object to form.

A So I think that -- I think that at least some eunuchs -- I've had limited clinical experience, but the clinical experience that I have had, I've seen people with gender dysphoria, but -- people assigned male at birth with gender dysphoria but also not desiring to identify as female, and that to me kind of seems more like a nonbinary bucket. And those folks with gender -- because I'm in -- you know, as a psychiatrist, I'm making a gender dysphoria diagnosis. I have made diagnosis of gender dysphoria with people who, you know -- who could be identified as eunuch in that they didn't want to -- were not interested in living as female.

MR. FISHER: Okay. So let's turn, Shawn, to page -- it's the Chapter 9 page. It says S88 at the top left. It's probably a third, maybe a quarter of the way into the document.

There we go. Yeah, perfect. Just make that a little bit bigger, please.

Q Okay. Doctor, the second paragraph under the "Chapter 9 Eunuchs," says, "Eunuch individuals are those assigned male at birth and wish to eliminate masculine physical features, masculine genitals or genital functioning."

Is that consistent with your understanding of eunuchs?

A Yes.

Q So when a eunuch presents as gender dysphoric, what does that mean? And again, I'm asking this in part because I -- I'm just trying to figure out how the gender dysphoria in a eunuch would differ from gender dysphoria from somebody who's assigned male at birth but then thinks of themself as female. And I wonder if you could kind of help me understand the eunuch gender dysphoria, what that dysphoria consists of.

MR. STRANGIO: Object to form.

A Well, and that's why, you know, I explained that I might have, in structuring Standards of Care 8, have put this in with nonbinary folks because, in my experience, it's people who have distress about certain masculine aspects of their body, but at the same time, are not interested in transitioning in a binary way and not identifying as female, but having gender dysphoria in that they can have quite significant distress about masculine aspects of their body.

Q Are you aware whether SOC 8 recommends that healthcare clinicians not make it mandatory for people with gender dysphoria to undergo psychotherapy prior to getting gender-affirming treatment?

A Yes.

MR. STRANGIO: Object to form.

Q I'm sorry, you are aware of that?

A Yes.

Q Okay. Do you agree with that recommendation?

A Yes. While psychotherapy can be beneficial for many people, and I do psychotherapy with people and I also take care of patients, for example, with medications who are separately seeing psychotherapists. And I think psychotherapy is very valuable for a lot of people. On the other hand, not everyone benefits from psychotherapy, and

it doesn't -- it's not necessary for everyone. And so I don't think it should be a requirement in order for people to receive gender-affirming care while -- you know, but while recognizing it could be helpful for people who, you know, want to take advantage of it.

Q How do you know in advance of psychotherapy whether someone would benefit from psychotherapy?

MR. STRANGIO: Object to form.

A Well, someone who, for example, has anxiety or depression might benefit from psychotherapy because there are specific psychotherapies better oriented towards helping people with depression or anxiety disorders, so that might be an example of people who are oriented towards -- towards using psychotherapy are more likely to benefit from it. So I think there are, you know, ways of kind of recognizing people for whom, you know, I might make a specific recommendation for psychotherapy.

Q Is there anybody with gender dysphoria or a particular set of manifestations of that that you would not provide or would not, I guess, be in favor of providing -- I'm sorry, let me start that over.

Anybody that presents with gender dysphoria

that -- where that manifests with a particular set of symptoms for whom it would not be appropriate to prescribe medical intervention without first going through psychotherapy?

MR. STRANGIO: Object to form.

A So there are circumstances where I might recommend psychotherapy to someone. Sometimes people have very entangled social or family situations and have been ambivalent about whether to proceed because of that. For example, someone whose marriage might end if they start transitioning, where I think psychotherapy would be really helpful for that person, you know, who might be going through particularly difficult circumstances.

Q Well, you're phrasing that in terms of recommendations or, you know, what you think might be helpful, but I'm just wondering if you think, well, no, there's some conditions where it's just absolutely inappropriate to -- for there to be medical intervention before psychotherapy.

MR. STRANGIO: Object to form.

A What do you mean by "conditions"?

Q Well, I'm talking about somebody whose symptoms, whatever -- you know, whatever it is that makes up their gender dysphoria, need to, in your view, be

treated with psychotherapy before medical intervention is appropriate.

MR. STRANGIO: Object to form.

A So there could be concerns, like someone who is having a lot of suicidal ideation or self-harm where I might, you know, recommend psychotherapy, and I want to discuss, if they were to pursue transition care, what the, you know, kind of -- what that experience could mean in terms of, you know, if they are, say, vulnerable to self-harm.

So there are times where, you know, I might feel it's important for that individual because of -- because of things that are problematic in addition to gender dysphoria that need to be addressed where, you know, I might recommend psychotherapy in that individual.

Q Oh, sorry, I didn't mean to cut you off. Thank you.

All right, let's go back to Exhibit 4, which is the declaration. And let's turn to paragraph 35. It's on pages 9 and 10.

Doctor, can you see that okay?

A Yes. I'm looking at the paper version.

Q Oh, that's fine.

A Only because it cuts off part of it. I'm not sure

if I move this to a different place.

Q That's okay. That's perfectly fine.

A Oh, okay. Well, then I can't see anyone, but ...

Q Well, if you want to look on the paper, that's fine too.

A Okay.

Q Yeah. So here I think you talk about the evidence base supporting the recommendations of the WPATH standards of care.

A Uh-huh.

Q You see that?

A Yeah.

Q All right. What do you mean by the "evidence base"?

A So WPATH contracted with Johns Hopkins University and people who are expert at doing systematic reviews and kind of compiled an evidence base of the literature related to transgender people and gender dysphoria. And so that provided an evidence base, in addition to, you know, all of the experts who participated in the process.

Q The Johns Hopkins systematic review, was that published with the SOC 8?

A Yeah, there were some publications that came out of that. I believe Baker, et al., was one, a

systematic review of hormones, for example. There were a couple systematic reviews of surgery that were published separately.

Q Anything with respect to children?

A No, I don't think they published a systematic review for children.

Q Is the -- so is it not true or -- I guess I'm trying to figure out if it's fair to say that the SOC 8 recommendations for children are supported by an evidence base and a systematic review of evidence.

MR. STRANGIO: Object to form.

A Well, everyone who was involved in writing Standards of Care 8 did receive a very voluminous document of kind of a systematic review of the literature, and I'm not sure if you're referring to the adolescent chapter as opposed to the child chapter, but certainly, you know, when you look at that chapter, it makes reference to -- you know, to the literature related to the treatment of adolescents.

Q But that literature itself did not go through a systematic review for purposes of SOC 8?

A Well, there was a systematic review, meaning that reviewing the literature, and there was kind of a

big database from that that was available for the authors of the various chapters.

Q With respect to adolescents?

A Yeah. I mean, there was -- I don't know whether there was a specific systematic review of adolescents because I wasn't on that chapter, but there was a very broad systematic review of the literature relating to gender dysphoria more generally because there was this large kind of database that made reference to a voluminous number of studies on different subjects related to transgender health.

But my focus in Standards of Care 8 was the mental health chapter. And some chapters had specific systematic reviews. I think maybe hormones, surgery, endocrinology surgery, had specific systematic reviews that were presented to them, and then some of those got published. But there was also this kind of broader database of literature that was available to people generally.

Q That was -- was that broader database of literature, did that constitute a systematic review?

A Well, that's a good question. It was -- it was a few years ago when -- even though it just got

published last year, when we did our mental health chapter, but -- so I think that there were only certain chapters where there was a specific systematic review for that chapter, but then there was kind of a broader database of studies that could be utilized, you know, by any of the authors of any of the other chapters to kind of assist them in -- you know, with the literature related to that chapter.

Q So the last sentence of this paragraph 35 says, "The evidence base supporting the recommendations in the WPATH standards of care is comparable to the evidence base supporting treatment for other conditions."

Do you see that sentence?

A Uh-huh, yeah.

Q I'm wondering what other conditions you're referring to there.

A So when you look broadly at the evidence base that we use to support our clinical decisions, there's -- sorry, all the lights went out again.

When you look broadly at the base of evidence that we make clinical decisions on, there is a broad range of types of studies, of means of information, and I think that's true in different

fields of health where we are using the information that we have and our clinical experience to best guide us in terms of care.

And I think about, for example, in taking care of adolescents who need psychiatric medications, most psychiatric medicines have only been demonstrated effective in adults and yet we sometimes use them in adolescents because that's all the information that we have.

So we don't always have perfect information, but we try to utilize the information that we have with our clinical experience to make the best treatment choices, and I think that is kind of true in different fields, different aspects of providing clinical care.

Q Anything besides psychiatric medications for adolescents that comes to mind?

A Well, you know, when you're talking about systematic -- if you're talking about systematic reviews, you know, the fact is that kind of studies of the database of systematic reviews have shown that most systematic reviews -- you know, earlier I mentioned the GRADE, the GRADE scores for a majority of medical interventions are low or very low in terms of the certainty of the recommendation

for an intervention.

And so it's common for most of the conditions that we provide care for that -- that we're dealing with an imperfect knowledge base of information, but where there's evidence and we're combining that with our clinical experience to try to make the best treatment decisions.

Q Well, and you've mentioned specifically psychiatric medications for adolescents, and I'm wondering if there's any other specific area that comes to mind.

A Well, like I was looking at the grading of a systematic review for psychotherapy for people who have been given a terminal cancer diagnosis, and the GRADE score was low certainty for that. And yet, you know, if I had a patient who was, you know, just given that diagnosis, it seems like I would, you know, at least, you know, recommend that they, you know, might consider getting counseling as they're trying to grapple with the realities of dying.

So, you know, I think these are kind of issues for all kinds of conditions, and we, as doctors, and I think especially in mental health, but I think even in other areas, don't always have kind of perfect guidance from, you know, a number from a

study or a radiographic, you know, image that demonstrates something. And yet we -- you know, we make clinical decisions based on the knowledge that we have from both studies and our clinical experience.

Q And we've mentioned psychiatric medications for adolescents, psychotherapy for those with a terminal cancer diagnosis. Any other areas that come to mind?

A Well, as I said, I think if we're talking about systematic reviews of medical interventions, the majority of medical interventions that are done have low or very low certainty for that recommendation. So I think that this is just very common in -- you know, in healthcare that this is an issue.

Q So nothing else specific comes to mind?

A Those were some specific examples that came to mind.

MR. FISHER: All right. Let's mark our next exhibit. What are we up to now, 7? And Shawn, this is the -- you'll find this probably under No. 19 in the list you got. It says, "Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice

Guideline."

(Deposition Exhibit 7 marked.)

Q Doctor, do you recognize this document?

A Yes.

Q What is this document?

A This document is the -- I assume it's the 2017 Endocrine Society guidelines for treatment of gender dysphoria.

MR. FISHER: Shawn, let's scroll down to the bottom so he can see the 2017 so he can just confirm that.

Q Doctor, does that confirm this is the 2017 version?

A Yeah, yes.

Q Great, terrific.

All right. So tell me what the function of this document is.

A So this was a group of experts from the Endocrine Society who put together practice guidelines for gender dysphoria from the perspective of endocrinologists.

Q Do you use this document in your practice?

A Yes. I would say now maybe Standards of Care 8 more than this because this was in 2017. And there was a particular time where it was particularly useful because it was more up to date than the 2011

Standards of Care 7. But now, you know, we do have Standards of Care 8 that includes, you know, an endocrine chapter that just came out last year.

Q What -- is this document, these clinical practice guidelines, are they supported by a systematic review of literature?

MR. STRANGIO: Object to form.

A Yes.

Q And did it follow the GRADE standard, that systematic review?

A Yes.

Q Where is that systematic review published?

MR. STRANGIO: Object to form.

A So the -- well, you can scroll up or down to see where it --

Q Is it -- you say it's --

A -- the paper where it's published.

Q Yeah.

A So -- so the Journal of Clinical Endocrinology and Metabolism, November 2017.

Q So this is itself, you're saying, a systematic review of literature?

A Well, it -- my recollection of this document is that it was based on a systematic review of the literature, so yes, it's a publication that has as

its basis a systematic review. And I think it includes GRADE scores as part of that.

Q And I guess I'm wondering where -- the systematic review itself, is it available so that researchers can examine the literature that was part of that systematic review?

MR. STRANGIO: Object to form.

A So I think that the -- if you keep on scrolling on this document, that they -- that the systematic review is discussed. They have a part where they -- well, see where they have the -- so they say that there's a systematic review, and then they have a -- I think a GRADE score for kind of certainty of a particular recommendation.

MR. FISHER: Chase, do you have the full document? I wonder if it would be easier for the doctor to just look at it, scroll through it himself, and tell us where he's talking about.

A See there, it says, "commission systematic review."

Q There we go. Yep.

MR. STRANGIO: I have handed him the paper, the printed version, but it sounds like we're in the spot on the screen as well. So I don't know if that's useful, but ...

A Okay. Yeah, where it says "commission systematic

review," and it describes a -- the two systematic reviews that they did as part of this -- you know, the endocrinology literature.

Q But does it tell us what literature was included in that systematic review versus what literature was not included?

A It says 29 eligible studies, and typically it will have like a CRISMA -- it'll have some listing of what was included and what wasn't, but I don't know where that is.

Q There's a table at the end that says, "References."

A Yeah, there's references, but there's also a particular kind of little graph, but systematic reviews sometimes use, of all the papers that were included among the 29. But I'm not sure if -- I'm not sure if that's there or not.

Q And if you could flip through it, either on the screen here or the copy Mr. Strangio has, and tell us whether that is included here.

A So I see a lot of data about their recommendations and references, but I don't see a specific listing of the -- sometimes they do list that -- which the studies that were included and those that were excluded, and I don't see that as part of this.

Q Well, without a listing of what was included and

what was excluded, is this properly understood to be a systematic review?

MR. STRANGIO: Object to form.

A Well, it's says a systematic review was done, but what was published here is -- are the clinical practice guidelines where the systematic review was -- the systematic reviews, there were two of them, were used as a basis for the recommendations that they made.

Q If somebody wanted to go and analyze the studies that were included versus those that were excluded that, you know, formed the systematic review that supports this document, where would they go to find that?

A If I wanted to do that, I would probably contact the author. But maybe there is -- I don't know if there is anything in the paper that says where to find the 29 that were included versus those that were excluded.

It's possible that they were published separately, like -- you know, like a few of the WPATH systematic reviews that were separately published, but I don't know.

MR. STRANGIO: Okay. Mr. Fisher, we're at 12:10 here. Do you want to break for lunch now or

do you want to finish with this document?

MR. FISHER: Yeah, just give me a second, Chase. Well, we can -- I just want to see if I've got anything else on this or WPATH before we break, but probably here in just a minute.

MR. STRANGIO: Yeah, sounds good.

Q Oh, Doctor, I'm not sure we have to go back and look at it, but with reference to WPATH 8, my understanding is that it removed the minimum age limit for a child to take puberty blockers, cross-sex hormones, or have gender transition surgery.

Are you aware of that change?

MR. STRANGIO: Object to form.

A So there was no difference for puberty blockers, because there's not an age. It's Tanner stage 2. And there was a prior version of the adolescent chapter that included ages for -- recommended ages for hormones, chest surgery, I think, and vaginoplasty. And then in the end, because it's a consensus document and there wasn't consensus on those ages, it was left to clinical judgment and there weren't specific ages that were put.

But they did state that any interventions should be age appropriate and that the adolescent

should have the maturity to not only -- to get the procedure, but to have the kind of cognitive understanding to assent to the procedure with the consent of the parents of the adolescent. And so, but without -- without saying specific age except, I think, they kept the specific age for phalloplasty at 18.

Q Did you agree with that change?

A So I wasn't part of the process. I wasn't directly involved in the adolescent chapter in terms of writing it or in terms of the -- you know, I wasn't involved in terms of the Delphi process, and there was a time -- a part of commenting on every chapter, but I wasn't a part of the change of changing the age recommendations.

I do think that there's strength in the document in there being consensus and that with any group of care providers, there, you know, are differences of opinion. And I still think that there's a principle of -- you know, of responsible care.

Q Do you think it's appropriate to prescribe hormones to adolescents?

A Yes, I think for adolescents for whom it's clinically indicated, you know, yes, I think

gender-affirming medical care can be appropriate.

Q What about surgery?

A So the one surgery that patients of mine have had, while minors, has been masculinizing surgery for people assigned female at birth, and so -- masculinizing chest surgery. So there are some adolescents who have -- assigned female at birth who have very strong gender dysphoria about -- around their chest, and it sometimes is appropriate to -- and patients sometimes receive great benefit, from having chest surgery.

I haven't recommended for my patients who are adolescents having genital surgery before the age of 18, but I think that there could be circumstances for vaginoplasty of families wanting to have that surgery perhaps at age 17 before the young person goes away to college so that they can be with their family to receive supporting care during the healing process and then go off to college after surgery.

So that would be for someone who is quite mature and where a determination was made that that was, you know, appropriate. So I can see that there could be a few circumstances, but generally I'm not recommending genital surgery for minors.

Q Why not?

A So I think that it is -- that generally it is appropriate for them to reach a particular level of maturity to -- that, particularly, genital surgery does have some -- depending on the surgery, does have processes that people have to be able to participate in where having that extra maturity would be helpful. And it also is, you know, maybe reaching, you know, an age, you know, of consenting for those procedures.

So I think that there can be circumstances where genital surgery for minors could be appropriate, you know, if there's individual -- an individual assessment of a good reason for it. In my practice, I haven't recommended it. And the one surgery that I have supported people in getting is chest surgery for when people have very significant dysphoria about their chest.

Q I want to make sure I understand what's involved in each of these. So chest surgery, what does that entail?

A So that is -- it involves a mastectomy and a male chest reconstruction or, you know, to have a male-appearing chest after removing -- removal of breast tissue, and so that's what I meant by

masculinizing chest surgery for people assigned female at birth.

Q And then you also mentioned vaginoplasty?

A Yes.

Q What does that entail?

A Vaginoplasty is genital surgery for trans women.

Q And what does it require?

A Well, it is a surgery that includes orchiectomy and creation of a neovagina typically, although for some people only have kind of an external vulva created by the surgeon. So that's what -- what happens when somebody receives a vaginoplasty.

Q I'm sorry, what is an orchiectomy?

A That's removal of the testes.

Q What about the penis?

A So the penis most commonly is inverted and is used in the creation of a neovagina. The glans penis becomes the clitoris, and the -- some of the skin from the penis is inverted after removal -- after replacement of the glans penis and reduction in size to be the clitoris, the remaining -- the skin from the shaft of the penis is inverted and becomes the vaginal canal.

MR. FISHER: Okay. I think that's a good place to break for lunch.

(Lunch recess taken.)
MR. FISHER: All right. Let's mark our next exhibit. So I think this will be 8, if my count is right. And this is going to be -- Shawn, you'll find this probably under No. 21 on that list. This is the Recommendation of the Council for Choices document.
(Deposition Exhibit 8 marked.)
BY MR. FISHER:
Q Doctor, do you recognize this document?
A Yes.
Q Can you tell me what this document is?
A It is recommendations from a government healthcare agency in Finland.
Q And what are those recommendations?
A You'll have to show them to me. I can't list them.
Q All right. Do you have a -- have you read this document before?
A Yes.
Q Okay. Did you mention --
A It was a while back.
Q Oh, okay.
A I think -- yeah, several -- yeah, it was at least a few months ago.
Q Did you mention this document or cite this document

anywhere in your report?
A No, I don't think so.
Q So let's go over to page -- well, it's under No. 7. It's under "Conclusions." And do you see, Doctor, it looks like it's the one, two, three, fourth paragraph down, and it says, "In light of available evidence, gender reassignment of minors is an experimental practice."
You see that statement?
A Yes.
Q Do you agree with that statement?
A No.
Q Why not?
A So I assume they mean treatment of gender dysphoria of minors, and I think that that is something that has -- people have been providing gender-affirming care for minors for decades, and there is both evidence of efficacy and clinical experience, and that's why I don't think it's experimental.
Q Okay. Let's go down later in that paragraph. It says -- and this, I think, is the penultimate sentence of the paragraph. "Information about the potential harms of hormone therapies is accumulating slowly and is not systematically reported."

Do you see that sentence?
A Can you tell me which paragraph that's in?
Q Oh, it's in the same paragraph.
A I see it now. Sorry. I jumped down to the next paragraph. Okay.
Q So you see that sentence, and I'm wondering if you agree with that sentence.
A Let me read it. So the sentence says, "Based on studies examining gender identity in minors, hormonal interventions may be considered before reaching adulthood in those with firmly established transgender identity but it must be done with a great deal of caution and no irreversible treatment should be initiated," which I assume they're referring to surgery.
"Information about potential harms of hormone therapies is accumulating slowly and not systematically reported." I'm not -- I don't know what that means, so I can't agree with that.
I would say that in this statement, they're saying that they are continuing to provide gender-affirming care to minors, just doing it more cautiously.
Q Okay. Let's go back a couple of pages under No. 5, where it says, "Risks, Benefits and Uncertainty."

A I'm sorry, paragraph No. 5 of this same page?
Q Yeah. No, no, I'm sorry, it's Section 5 of the study. I'm sorry. A couple pages back.
A Can you -- I only am looking at the screen, so can you --
MR. FISHER: Shawn, can we go ...
Q So here I'm looking down at the last paragraph, where it says, "The effect of pubertal suppression and cross-sex hormones on fertility is not yet known."
Do you see that sentence?
A Yes.
Q Do you agree with that sentence?
A Well, there are things that are known and things that are not known. I was -- when I was scanning down there, I got stuck on the previous paragraph where it says, "This study found that during cross-sex hormone therapy, problems in these areas did not decrease," and I know the study they're referring to, and I think they were -- they are mischaracterizing the study, so -- which, actually, I think showed substantial benefits from cross-sex hormones. So it just makes me wonder about the bias of the person writing this.
But anyway, I think that there are fertility

concerns about pubertal suppression, particularly if done very early. And, you know, so I agree that this concerns why, in Standards of Care 8, part of the recommended process, with informed consent for care, is fertility counseling. And that is kind of listed again on the summary of recommendations for care, because people need to, you know -- certainly need to know that it's a consideration.

Q Now, as I understand it, one of those recommendations -- so, yeah, let's go to page 10, right before Section 9.

A So I don't have the paper, so I'll have to see it up here.

Q All right. So I'm looking at the paragraph right before Section 9. It says, "Surgical treatments are not part of the treatment methods for dysphoria caused by gender-related conflicts in minors."

And I'm wondering if you -- I guess what your reaction is to that statement.

A So I'm aware from having read this -- there is a paper from Finland that showed very strong benefits with gender-affirming care with -- in mental health with hormones, and from that I could see the protocol in Finland, which was that they would start hormones at age 16 and then, but they --

surgery, from their, you know, prior protocol as well, was reserved for adults within their national health system.

And so I think that that's reflecting the government national health system, that they can get puberty blockers at Tanner stage 2, hormones at 16, and surgery at 18, if you want to get those things, you know, fully paid for through the national health system.

MR. FISHER: All right. Let's go to what we'll mark as Exhibit 9. It's, I think, under No. 22 on your list, Shawn. It's "A systematic review of hormone treatment for children."

(Deposition Exhibit 9 marked.)

Q Doctor, are you familiar with this paper?

A I have seen this paper. It was only published very recently, so I have just scanned it briefly.

Q Oh, so you haven't had a chance to fully digest the paper?

A Well, I have a -- I have a sense of it. So you can ask me specific questions and, you know, show me what you're referring to on the paper, and then I'm happy to respond.

Q All right. What is your sense of this paper?

A Well, it's a systematic review. It was a

systematic review that, I think, was maybe meant to support some recommendations for care of minors in Sweden. And I think this systematic review was previously just available in Swedish, but it's now just been published in English.

Q Let's turn over --

MR. FISHER: Shawn, let's go over to page 4 under -- this will be under 3.3, Section 3.3. There we go.

Q So I guess, Doctor, I mean, as a systematic review, this is -- as I understand it, at least, this -- the authors of this paper have made available -- you know, they've disclosed the studies they included and the studies that they excluded.

A Uh-huh.

MR. STRANGIO: Object to form.

Yes, Doctor, go ahead.

A I take your word for it, but again, I've only kind of scanned this paper quickly because it was just published.

Q Okay. Well, so we have under 3.3, there's a discussion of studies that examined psychosocial outcomes and cognitive effects, and, you know, it enumerates them briefly in the first paragraph. And in the second paragraph it talks about the -- I

guess, you know, what reaction these authors had to those papers.

And it says, "Because these studies were hampered by small number of participants and substantial risk of selection bias, the long-term effects of hormone treatment on psychosocial health could not be evaluated. Of note, the above studies do not allow separation of potential effects of psychological intervention independent of hormonal effects."

What do you -- what is your reaction to that statement?

A So I think it's very difficult to draw conclusions on complex interventions with graded systematic reviews, and so it's not surprising that -- you know, that limitations would be found. I would just add that for systematic reviews of complex interventions that it really is the norm for there to be really significant issues in terms of in the systematic reviews. So it's -- I don't think transgender health is an outlier in that regard, but it's also not a surprising conclusion.

But I would say, the additional thing that I would say is even if this is what they found on a systematic review, which was bringing down 10,000

articles down to 24 and seeing if they, you know, could have a statistically significant effect from those 24, even if that's what they found, that doesn't mean that there aren't, you know, a number of studies that have shown psychosocial improvement with hormone treatment and that our clinical experience has also been that hormone treatment for those people who need treatment of gender dysphoria can have dramatically positive effects.

So I think there's a limitation in just, you know, using this particular kind of analysis, but it's not a limitation that is restricted among the medical interventions that we do, you know, all the time. It's not necessarily restricted to transgender health, and it's not fully reflective of, you know, our experience of -- you know, and the number of studies that have shown a benefit from hormones for gender-affirming care.

Q So is this study, in your view, relevant to your consideration of safety and efficacy for hormone treatment for minors?

MR. STRANGIO: Object to form.

A So, you know, WPATH, certainly, and others have used, you know, systematic reviews. They can be helpful. I'm not sure about a -- there was a

government process that I'm somewhat skeptical about, but I would need to read the article further to draw more conclusions on its utility.

Q Were you aware of this paper when you wrote your declaration for this case?

MR. STRANGIO: Object to form.

A This paper had not been published when I wrote my declaration.

Q I see. Okay.

A It was only -- it was published three weeks ago.

MR. FISHER: Okay. So let's mark Exhibit 10. And this one, Shawn, you'll find, I think, at No. 23 on your list. It says, "Evidence review: Gonadotrophin releasing hormone analogues."

(Deposition Exhibit 10 marked.)

Q Doctor, do you recognize this paper?

A Yes.

Q All right. What do you understand this paper to be?

A My recollection is that it's a systematic review of effects of GnRH agonists in treatment of adolescents with gender dysphoria.

Q And have you read this paper before?

A Yes, but it's been a little while.

Q All right. So let's turn -- well, actually, my

first question is, did you cite this or -- this paper in your declaration in this case?

A No.

MR. FISHER: Let's turn to page 40 of the document, please, Shawn. Let's make that just a little bit bigger, if we can. Scroll down just a little bit. Thank you.

Q So, Doctor, under the header of 6, where it says "Discussion," the first sentence says, "A key limitation to identify the effectiveness and safety of GnRH analogues for children and adolescents with gender dysphoria is the lack of reliable comparative studies."

Do you see that statement?

A Yes.

Q Do you agree with that statement?

A Well, my opinion, a little bit, is a little different about GnRH analogues. I think there's -- evidence is very strong that they work in terms of stopping puberty. The question is when you have studies that are looking for more than that, you end up with this complex intervention -- complex outcome where it's more difficult to find high certainty evidence on a systematic review.

So I think that the evidence is very strong

that if you give somebody a puberty blocker, it will block -- it will effectively block their puberty. The question is, you know, what other outcomes, you know, should you be looking for in -- you know, in those patients.

Q So then the next paragraph says, "The studies included in this evidence review are small, uncontrolled observational studies, which are subject to bias and confounding, and are of very low certainty as assessed using modified GRADE."

So what about that sentence -- I mean, I guess I'm wondering, first of all, if you've studied this enough to know what studies were included in the systematic review to be able to assess that statement.

A Yeah, I --

MR. STRANGIO: Object to form.

A I don't recall which ones were included or excluded in this study. Again, a systematic -- systematic reviews of complex interventions, and especially when you're looking for a mental health outcome, that those -- that you never get high certainty on GRADE. There was a study where no GRADE for systematic reviews of any interventions, that were complex interventions, showed a high certainty and

that most -- even most overall GRADE scores for systematic reviews of medical interventions are low or very low certainty.

So it's -- you know, of course more of it is the better, and there is a little bit more, a little bit larger study that's come out after this, but it's not, you know, surprising that doesn't get a high GRADE score.

MR. FISHER: All right. Let's mark the next one. So this will be Exhibit 11, and this is -- should be the next document, Shawn, "Evidence review: Gender-affirming hormones for children and adolescents with gender dysphoria."

(Deposition Exhibit 11 marked.)

Q Doctor, do you recognize this document?

A Yes. Again, it's been a little while since I've reviewed it, but yes.

Q What do you understand this document to be?

A That it provided a systematic review of gender-affirming hormones for adolescents with gender dysphoria.

Q So if we go over to page 13, please, under the header of "Discussion," the third paragraph down. So the third paragraph down, it says, "The included studies have relatively short follow-up, with an

average duration of treatment with gender-affirming hormones between 1 year and 5.8 years."

I'm wondering if you know of any studies that have done follow-up beyond six years.

A Well, the Dutch presented some of their data in Montreal, because they have been following people -- they've continued to follow people, and so I think there is more that is -- you know, is coming out. The largest multicenter study in the United States is still presenting, you know, two years' worth of data just because, you know, it takes time to -- from the initiation of a study to, you know, its completion.

The Dutch group has been doing this work for the longest, and so they have the longest experience.

Q The Montreal data that you referenced, do you know when that will be published?

A No. But they have continued to publish -- they have continued to publish data. I'm not sure what the longest number is, but they are continuing to follow patients, and they, you know, have been providing gender-affirming care for minors for many years now. So I think they have the best chance of publishing, you know, more long-term effects.

They have published long-term data with adults, but if you're talking about minors, it's -- I think, you know, most of the data is of shorter duration. Although six years is still a long time. There was a study in the U.S. where -- from University of Virginia where they actually went back and found patients who had been part of their gender program 40 years ago and found, among the 15 people they could still find 40 years later, that people had, you know, very positive effects.

So it's not that there's an absence -- you know, full absence of long-term care. Those patients in Virginia, when last seen, were adults, although I think some people had started their care as minors, but it was a follow-up of those who had received surgery as adults.

Q So I'm wondering with respect to these last two documents, the two British systematic reviews, do you recall having any concerns about the papers selected when you read these, when you studied these documents before?

MR. STRANGIO: Object to form.

A I don't recall which papers were selected or not selected. Here I would have to review the document, but I think that -- that I do have

concerns about just that when systematic reviews are used supporting banning gender-affirming care when I don't think that was the purpose or even the purpose in -- for example, in the United Kingdom, of using them. All of the European countries are still providing gender-affirming care to minors, even if there have been processes that might make access to care less than optimal.

Q Do you find these systematic reviews, the British ones in particular, are they relevant for your consideration about the safety and efficacy of either puberty blockers or hormone treatment?

A You know, I'm not discounting them, but I would say that the conclusions drawn were continuing gender-affirming care in the United Kingdom, even though they, you know, have had -- have had problems with access, they were not proposing as a conclusion of the Cass support to ban gender-affirming care, they were actually talking about expanding the number of clinics that provided gender-affirming care for minors.

Q So you do find them relevant, then?

MR. STRANGIO: Object to form.

A Relevant in terms of, you know, there's a larger database of publications and, you know, they exist

in that context yes.

Q Let's go back to your declaration, which is Exhibit 4. And I want to look at paragraph 47. There we go. Okay.

Doctor, you make two statements in paragraph 47, if you could just look at them, just refresh your recollection for a second.

A Uh-huh.

Q And you don't have any inline citations here, and I'm wondering if you -- if this is just meant to be an introduction to what follows or if these are supposed to be standalone statements about evidence that -- for which there's support that you can cite.

A So I think I did a briefer statement here than I sometimes have. There is a little more detail in the pages to follow, and so I think in between here and page 16 there are more citations. But, you know, I'm happy to talk about, you know, whatever you want to ask about.

Q Sure. Great. All right. Well, let's go to 49. And there we go.

So here in 49 again you have a series of statements and no inline citations, and I want to know what studies support each of these statements.

A So, well, unlike 47 when, you know, we could discuss the articles involved, 49, I was talking about my own clinical experience.

Q Well, 49, the first sentence says, "The studies on gender-affirming care for adolescents with gender dysphoria are consistent with decades of clinical experience of mental health providers across the U.S. and around the world."

So I'm wondering what studies you're talking about.

A Yeah, and so -- you know, we could talk about -- and there are a number of studies. Luke Allen's study from Kansas City Children's. They did -- where it was a series where people received -- adolescents received gender-affirming care showed mental health benefits.

There's the large multicenter study that was published by Diane Chen where there was improvement of body congruence, and there was improvement in mental health outcomes with hormones. There's the Tordoff study where they were comparing people who had received puberty blockers and hormones with people who -- in that same clinic who hadn't received care yet and -- but over the course of the study did.

And when you do the statistical analysis to compare before people got care to those who did receive gender-affirming care showed significant improvements in mental health outcomes. And then there's all the Dutch data where they've shown mental health improvements with gender-affirming care in adolescents.

Q The third one you mentioned, Tordoff, did you say?

A Tordoff.

Q Can you spell that for me.

A T-O-R-D-O-F-F.

Q Okay, great. Is that cited in your -- I guess your Appendix B or Exhibit B?

A You know, I was just looking and realizing, even though it wasn't cited, I cited Inwards-Breland, which was the same study, but that was -- before it was published, that was when -- from the abstract at American Academy of Pediatrics. And then it was under a different author, it was published and is missing maybe. In editing my statement, I didn't include -- it looks like I didn't include Tordoff. I sometimes have. And so then it didn't -- I must not have gotten it into the bibliography.

Q Okay, I just want to make sure I understand. Is Inwards-Breland the same study or under a

different --

A Yeah. It's the same study, it was just -- it was presented at a couple of conferences. I saw one of the times it was presented, and there was a published abstract. And so that was just based on that published abstract. But then later it did get published, but under a different name, under a different first author.

Q Okay. All right. And then the rest of paragraph 49 is you're talking about your clinical experience, as I understand it. And then in 50 you have a series of statements, and I'm wondering, is this about clinical experience or is this based on studies as well?

A So I think it's both. I think in -- there's, certainly, from the Dutch studies, as well as the American studies, benefits do outweigh the risks. It's not that there have been no adverse outcomes, but I think the conclusion of various papers have been that benefits outweigh the risks for treatment.

Q Can you give me the specific studies that you're thinking of there?

A So I think that the ones that I just cited -- Allen, Chen, Tordoff -- all showed benefits of

care. Then the various Dutch studies, including de Vries, also -- you know, certainly de Vries 2014 Pediatrics showed great benefit from care. There was one adverse outcome in that study from complications of surgery on one patient, but -- but overall the study showed great benefit for the patients in that study.

Q Any others?

A Well, I think if you -- you can look at -- you can look at the -- at a number of the -- the Dutch have published a number of studies with benefit. I think the systematic review that was part of Standards of Care 8 that Baker, et al., authored showed benefits. It included, I think, a couple adolescent studies, but mostly adults in the systematic review. So I think that there have been a number of studies that have shown benefit -- benefits from care.

Q Okay. The Baker that you just mentioned, is that cited in your Exhibit B?

A Let's see. No. Again, I think that this was maybe a shorter declaration because I have cited it in other declarations, but it may have been for the sake of brevity in this particular one that that wasn't cited.

Q So let's now go back to paragraph 47 now that we've gone through 49 and 50. And have we covered everything that supports the statements in paragraph 47 or are there additional studies that support those statements?

A Well, I told you some. I didn't here do an exhaustive review. There is this Cornell What We Know review that lists predominantly studies of adults, but lists a pretty exhaustive review with links to each study of outcome studies for gender-affirming care from the 1990s through 2017. And that has dozens of studies. And their overall conclusion was that gender-affirming care improved quality of life and measures of mental health.

Q I remember seeing the Cornell review. Oh, is it -- yeah, I think we've got it. Maybe it's -- I'm not sure if it's in Exhibit B, but maybe it's cited elsewhere in the paper. But just tell me a little bit about that Cornell review. Is that a systematic review?

A It was a systematic review of papers that had outcome measures for gender-affirming care, you know, from the '90s through the time of publication.

Q And does it have a high GRADE score?

A And I don't think they used GRADE in that publication.

Q Okay. Anything else that you want to point me to that supports the statements in 47?

A Well, those are what -- you know, those are some studies that come to mind. And there was -- I guess if we're thinking of other studies, there were a couple of studies for chest surgery in transgender youth, one by Jo Olson-Kennedy that showed a substantial reduction in body incongruence with chest surgery. Those are kind of -- some of the cites off the top of my head.

Q Doctor, you mentioned one of the studies for both paragraphs 49 and 50, a study by Luke Allen.

A Yes.

Q And I think we've got that. It may not be in the stuff that's been uploaded, though.

MR. FISHER: Melinda, can you go ahead and send that -- or maybe even post it in the chat or something. I don't know if that's something you can do or if that's something maybe Shawn has to do.

SHAWN WEYERBACHER: If you could post that document in the chat, then I could display that.

MR. FISHER: Okay.

MS. HOLMES: I'm sorry, you said Allen.

MR. FISHER: Yeah.

MS. HOLMES: Could that be on No. 28, or are we talking about a different study?

MR. FISHER: Oh, is it in there? Oh, maybe not. Maybe it's there.

SHAWN WEYERBACHER: Is this it right here?

MR. FISHER: Well, I think that's the one I had my eye on, so thank you, yes. Let's mark this one now. I don't remember now what we're up to now. I hope somebody does.

12. I'm hearing 12. Great, thank you.

(Deposition Exhibit 12 marked.)

BY MR. FISHER:

Q Doctor, is this the Allen study that you were referring to?

A Yes.

Q What was the sample size for this study? Actually, let's just start at a higher level question.

What is this study purporting to tell us?

A So it was -- they looked at -- for youth who were at this transgender clinic in Kansas City. They looked at mental health measures as it related to the youth receiving gender-affirming hormones.

Q What is -- what kind of a study is it?

A So it is -- well, it's a randomized control trial. It's described as a longitudinal evaluation in the study.

Q Then how many people did it study?

A It just says here 47 youth were assessed before treatment and then at least three months afterwards.

Q At least three months. About what was the -- do you know what the -- I guess -- well, it says -- I'm not sure if it's -- does it tell us how -- what the mean was for how many months they were followed?

A I don't recall. One would have to, you know, look at the study for that number.

Q And is it accurate to say, from your understanding of this study, that the patients that received the medical intervention also received psychological support?

MR. STRANGIO: Object to form.

A I don't recall what other interventions were received or how -- you know, were received by those youth. So what kind of support they received or didn't receive.

MR. FISHER: Okay, great. Melinda, do we have Chen in the collection or should we post that one

to the chat?

MS. HOLMES: I don't know if we have a Chen study at all. It wasn't in the exhibits as far as I saw.

MR. FISHER: That's okay, I think I've got it here. Hopefully I can figure out a way to make this available.

So Chen -- indeed, I don't see Chen in Exhibit B.

BY MR. FISHER:

Q Is Chen listed somewhere in Exhibit B, Doctor?

A Oh, so Chen is not in my bibliography. Again, I think it may have been something kind of edited for brevity, because I don't cite -- I don't do a review of the studies and citations of the studies in my declaration, though it's -- yeah, I don't -- you're asking about some of the studies for me to form the opinions. I didn't -- part of my declaration wasn't an exhaustive list of -- you know, of the research.

Q Then you mentioned de Vries 2014. Is that -- oh, I think I see that at the bottom of page 2 of your Exhibit B. Is that the de Vries study you were mentioning before?

A So there are -- yeah, so at the bottom of page 2,

that's de Vries 2014.

Q Yeah, okay.

MR. FISHER: And I think that we can mark that. But I think that that is -- well, yes. I think that's behind -- that's at No. 11, perhaps, Shawn. Let's bring that up, and we can mark that 13.

(Deposition Exhibit 13 marked.)

Q So, Doctor, is this the de Vries 2014 study?

A Yes.

MR. STRANGIO: Sorry, just for clarity, can we scroll down.

MR. FISHER: Oh, sure.

MR. STRANGIO: Thanks.

Q And what -- can you tell us about this study? What is it purporting to tell us?

A So this was a study where they followed -- well, there were a total of 55 people who remained in the study to adulthood, it looks like, but who had received pubertal suppression during adolescence, and then received cross-sex hormones, and then as adults received gender reassignment surgery, it says.

And so they followed mental health measures of these 55 transgender people from pubertal

suppression to a year after gender-affirming surgery and found that mental health measures were -- were quite good in those adolescents, that they improved with intervention, and that well-being was similar to cisgender controls.

Q What was the kind of -- generally speaking, what was the structure of the study? What kind of a study was it?

A So it was a prospective -- it was a prospective longitudinal study that they've been doing in the Netherlands now for many years and of providing gender-affirming care from pubertal suppression on, and then collecting data on those -- on those patients. So these were patients who were -- it looks like it was followed for a mean of just over seven years from the start of pubertal suppression to a year after gender-affirming surgery.

Q Is it accurate to say that the subjects of the study also received psychiatric treatment during the study period?

MR. STRANGIO: Object to form.

A So I think in the Netherlands certainly mental health support is available. I don't know the kind of extent of it over all of those -- over all of those years.

Q Is it your understanding that this study controls for psychiatric treatment?

MR. STRANGIO: Object to form.

A So I think that, you know, whenever you do a study, it's a consideration that people, you know, can have other interventions, including mental health help. But I, you know, would point out that when you have studies of before and after, that people may well have been receiving mental health help before whatever the intervention is.

And so, for example, in Luke Allen's paper, it was a shorter intervention than seven years, that they may well have been -- already been receiving mental health help. And in my clinical experience, I've taken care of a lot of patients who haven't been able to get gender-affirming care. And even though they get mental health help, it's not a substitute for receiving gender-affirming care when they need it, when they're having dysphoria about their bodies.

Q So does this paper establish causation between the medical intervention and the outcomes?

MR. STRANGIO: Object to form.

A So I -- you know, you're only on the first page, and I would have to review how they worded their

results, but their results from the, you know, abstract on the first page says that gender dysphoria was alleviated, psychological function had steadily improved, well-being was similar or better than same age adults in the general population. And that's not typical of transgender people who -- transgender youth who haven't received gender-affirming medical and surgical care.

MR. FISHER: Okay. So Chase, do you have the -- so that we -- the doctor can look through it at his own pace, do you have it available there?

MR. STRANGIO: I can look. I printed out everything, but it may take me a second.

MR. FISHER: Okay.

MR. STRANGIO: We only have -- sorry, I was going off of the exhibits from yesterday, but I didn't see your exhibits from this morning.

MR. FISHER: Yeah. It's okay.

THE WITNESS: That's it?

MR. STRANGIO: Yeah.

THE WITNESS: Okay.

A So just paging through it, it looks like they have data with a number of effects where they do see a significant improvement in mental health and

subjective well-being. Let's see, Table 4. So they do -- I just want to see what's included.

So, you know, they did -- they did, as each study does, they talk about limitations, but their conclusions were that this protocol that they had of puberty blockers, gender-affirming hormones, and then gender-affirming surgery, led to improved psychological functioning of transgender adolescents and were recommending early intervention, you know, in appropriate youth.

Q So led to, does that establish causation?

A I'm sorry?

Q You said that they say -- and maybe you could just tell me where they say it specifically -- that it led to those outcomes.

A So it says, "Results of this study provide first evidence that, after gender-affirming hormones and gender reassignment surgery, a treatment protocol including puberty suppression leads to improved psychological functioning of transgender adolescents."

And so that was their wording, was that it leads -- it leads to.

Q Is it -- do you understand them to be claiming causation?

MR. STRANGIO: Object to form.

A They're claiming that this intervention leads to improved psychological functioning, and it also says that -- it says, "While enabling" -- the next sentence says, "While enabling them to make important age appropriate developmental transitions, it contributes to a satisfactory objective and subjective well-being in young adulthood."

So they feel that -- I think they do, you know, assert a causality that their interventions, you know, really benefited the youth who received the interventions.

Q Given the design of the study and the limits of the study, do you think it was appropriate for them to make a conclusion about causality?

MR. STRANGIO: Object to form.

A Well, they did have quite dramatic results, especially when we look at so many studies of transgender adolescents who have co-occurring mental health concerns, including suicidality. And they -- their data is showing that in this cohort that -- that they treated, ended up with mental health outcomes comparable to cisgender controls, and that's a pretty strong improvement.

Q Okay. But I'm just wondering if their causation conclusion is supported by the design and limitations of their study, in your view.

MR. STRANGIO: Object to form.

A You know, there's always limitations, but I think that this paper provided strong evidence, and I think it was received as such because, you know, the -- first the Dutch group is a very kind of academic and responsible researchers. They have a lot of data, and the data showed pretty strong improvement. So I think all of those things were taken seriously.

Q Yeah, but my question is, do you think that they were -- that they appropriately and properly, given the design and limits of this study, found causation?

MR. STRANGIO: Object to form.

A You know, I think that they assert that -- you know, that their intervention was responsible for the benefit, and I think there's a strong argument for that because it's -- it would be unusual just randomly for transgender adolescents to make such a dramatic improvement.

Q I understand that. I really just want a straightforward answer. Do you agree with their

conclusion that their evidence and their design and limits demonstrates causality?

MR. STRANGIO: Object to form.

A I think -- I think I've answered your question.

Q Okay.

MR. STRANGIO: We've been going about -- are you done with this? Sorry.

MR. FISHER: No, I've just got -- let me finish this paper, and then we can take a break.

MR. STRANGIO: Yeah.

Q So let's look at the same page with the conclusions. And the --

MR. FISHER: So Shawn, can we scroll down, page 703. There we go.

Q Okay. So in the note, the second of those three columns of text, right before footnote 44, you're following with me, it says, "Predicting individual persistence at a young age will always remain difficult."

Do you see that?

A Yes. When they're talking about prepubertal persistence or desistance. But the Dutch group certainly has had -- you know, demonstrated very high rates of persistence in those people who have gender dysphoria adulthood diagnoses.

Q And I'm just wondering if you agree with the statement that predicting individual persistence at a young age will always remain difficult.

A Well, this was before the Kristina Olson group set of papers, which -- where they did demonstrate a cohort of prepubertal transgender youth, youth with transgender identity, that was very stable, with very little desistance.

So I think it depends on what population you are following, and even within the same Dutch group, within -- Thomas Steensma published not long before this, they found -- even though they found substantial prepubertal desistance, they found that one could distinguish essentially factors that were associated with persistence.

But even when you get out of the prepubertal desistance conversation, post pubertally it's clear that there are very high rates of persistence when somebody gets a gender dysphoria diagnosis in adolescence and adulthood.

Q Okay. So a couple of lines down, it says -- and this is the final sentence in that column, "Therefore, psychological maturity and the capacity to give full informed consent may surface as the required criteria for puberty suppression and CSH

in cases that meet other eligibility criteria."

Do you see that?

A Yes.

Q What do you make of that sentence?

A Well, the -- the author -- the first author of this paper was also the chapter co-lead for the adolescent chapter in Standards of Care 8, Annelou de Vries. And that chapter lays out the assessment of the adolescent and certainly in this country, so in most of this country, until a minor is 18 years old, it's the parents who consent, and so there is an assessment of the youth's ability to get -- to assent to care, to agree with the parents' informed consent.

But, so I'm not sure about the -- exactly about the wording of that sentence, but I think it's laid out in more of a detail, but the process for making that assessment in adolescence.

MR. FISHER: Okay. Let's go ahead and take a five-minute break, if we can. Actually, just give me ten. Let's do ten minutes, if that's okay.

MR. STRANGIO: Yeah, ten is great. So 5:25ish?

MR. FISHER: Yes, sounds good. Thanks.

(Recess taken.)

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BY MR. FISHER:
Q So, Doctor, earlier you mentioned in connection with paragraphs 49 and 50 of your declaration --
MR. FISHER: And maybe we could, Shawn, go ahead and pull that back up. That's Exhibit 4.
Q So I was asking you about what studies supported the statements in these paragraphs, and one of them that you mentioned was Chen.
A Yes.
Q And I was trying to figure out which Chen. Was it Chen 2023 or was it a different one?
A No, that would be the Chen that -- Diane Chen, et al., study of the four center longitudinal study.
Q Right. Well, the title I've got is "Psychosocial functioning in transgender youth after two years of hormones 2023."
A Yes.
Q Is that the one or is it different? That's the one?
A Uh-huh.
Q Was that a control group study?
A So that did not have randomized controls. It was a prospective longitudinal study.
Q So is it possible to draw causal conclusions from

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it?
MR. STRANGIO: Object to form.
A Well, it was a large study. They had over 300 youth and, you know, we can draw conclusions when there's statistically significant differences between groups, you know, within the limitations that the authors, you know, provide for drawing conclusions.
Q Okay. So I just want to make sure I understand. Do you think that that study shows causality?
MR. STRANGIO: Object to form.
A I think that's a simplification, so that's -- it's not necessarily how I would describe it. But I think it provides evidence for benefit.
Q My understanding is that two individuals committed suicide during that study; is that your understanding?
A Yes.
Q Are you at all surprised that didn't put a stop to the study?
MR. STRANGIO: Object to form.
A So I take care of adolescents with gender dysphoria, and there is a tremendous amount of suicidality in that population that is, you know, without treatment. So -- and, you know, there has

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been in the -- you know, studies showing benefits for gender-affirming care. There is -- you know, can be a reduction in suicidality.
So when you're following a cohort, in this case of over 300 trans youth, when suicidality and suicide attempts in that population are so high, you know, the fact that there are suicides is tragic and I'm sure devastating for the clinicians working with those youth, but not entirely unexpected because there is so much suicidality in that -- particularly in the population of transgender adolescents.
Q Let's see. Oh, I know what I wanted to ask you. It's about paragraph 50. We are still there. And I think in the middle of the paragraph, it says -- well, maybe it's the second or third sentence. "In addition, a treating doctor will not offer gender-affirming medical treatments unless they have concluded after weighing the risks and benefits of care that treatment is appropriate."
Do you see that sentence?
A Yes.
Q And then you talk about how the risks and benefits of care are discussed with the minor's parents, et cetera.

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And so I'm wondering about the risks, and you've alluded to them in your testimony today. But in your declaration, in the second sentence, you say, "The risks of withholding care for transgender youth and gender dysphoria are clear as described and referenced above."
And I wasn't sure where -- what you were referring to about "above." And maybe you've got your report there. You can leaf through it and tell me.
A Yeah, what -- I'm sorry, what page? Where are you referring to?
Q Oh, this is in paragraph 50 on page 13.
A Oh, okay. Okay, well, I may have edited it out, as I said, in some of the papers that we discussed, but --
Q Well, so I guess --
A Yeah.
Q Is there --
A But in terms of -- in terms of risks, there are risks of not receiving care. One example -- you know, in addition to when the, you know, comparisons of people, of youth before and after they received care in some of the studies we talked about before, there is some large surveys. One was

from the U.S. Transgender Survey, and another one was from the Trevor Project, where lack of access to care has been associated with increased suicidality.

Q Yeah, I'm interested in the risks of receiving care, which you allude to again in paragraph 50, risks and benefits of care. And so, first of all, I just want to confirm, there's no discussion of the risks before paragraph 50 of your declaration; is that correct?

A When I'm talking about the risks and benefits of care, I was talking about the discussion of informed consent, which of course is central to receiving gender-affirming care. And when I was talking about a treating doctor not offering a treatment unless they conclude that the benefits outweigh the risks, that's true for any care, not just gender-affirming care. A doctor provides care concluding that the benefits of providing that care outweigh the risks.

Q Yes. So then in the following paragraphs, 51, 52, 53, 54.

MR. FISHER: If you could scroll down, Shawn. The doctor probably has it in front of him anyway.

Q Here you're talking about regret and regret rates

in 51 and 52. And then in 53 you're talking about desistance. And then 54 you're talking about desistance. Do you consider desistance to be a risk of medical intervention for gender dysphoria in youth?

MR. STRANGIO: Object to form.

A So desistance as I talk about is a prepubertal phenomenon. I do think that regret is a risk, and it is one that I discuss with my patients and their families. It's a small risk, you know, as I, you know, describe here in these studies.

The percent of people who regret gender-affirming care is quite small and smaller than kind of equivalent care that's given to cisgender people. But it is a risk and, you know, it's just something that -- you know, that I discuss with people, that, you know, there are small numbers of people who regret receiving gender-affirming care and that that's something, you know, among their considerations in making an informed consent.

Q And apart from regret, you talk about desistance. And so I'm wondering, in what sense is desistance itself a risk?

A So desistance happens before treatment. So

desistance is a phenomenon in a prepubertal youth, so it's not a risk for treatment because it happens before treatment is given.

Q Okay. So desistance is not in any sense a risk as far as you're concerned once treatment is started?

MR. STRANGIO: Object to form.

A There's -- at least the evidence is that -- that it's very uncommon after the start of puberty, and that's certainly also been my clinical experience, that it is very uncommon for -- or that gender dysphoria that persists into adolescence is very, very likely to continue, you know, for -- through the life span of the patient.

Q Would desistance in your view amount to a negative outcome for somebody who's undergone medical treatment for gender dysphoria?

MR. STRANGIO: Object to form.

A So again, desistance is really a prepubertal phenomenon. There are -- you can start to get into worrying, but, you know, later in life you might refer to detransition in terms of people who have started transitioning and stopped. That, you know, I -- it's a risk when there's -- if there's regret.

But more commonly, if somebody does stop hormones, it's not necessarily for regret, but

because they've met their transition goals. For example, if they're nonbinary. You know, sometimes people will be on hormones for a period of time but not want to make a binary transition.

Q Are you familiar -- I don't have it right in front of me, but -- well, let me just see if I can find it.

Are you familiar with a statement from Dr. Hilary Cass -- first of all, are you familiar with Dr. Hilary Cass?

A Yes.

Q Okay. Are you familiar with a statement from her that she's wondering whether children who start on puberty blockers are effectively locked into a treatment pathway? Does that ring a bell with you?

MR. STRANGIO: Object to form.

A No. You can -- if you could show me the statement, but I don't recall that.

Q That's not -- okay, that's not something you're familiar with? That's okay. We don't need to go any further into that.

MR. FISHER: Okay. We may be just about done here, Chase. Let me just take a few minutes.

MR. STRANGIO: Okay.

(Recess taken.)

MR. FISHER: Doctor, thank you very much. I don't have any additional questions, but Mr. Strangio might.

MR. STRANGIO: No questions from me.

So Debbi, we can just have the doctor read and sign.

(The deposition concluded at 5:52 p.m.)

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

K.C., ET AL.,	)	
	)	
Plaintiffs,	)	
	)	
-v-	)	CASE NO.
	)	1:23-cv-00595-JPH-KMB
THE INDIVIDUAL MEMBERS OF THE MEDICAL LICENSING BOARD OF INDIANA, in their official capacities, et al.,	)	
	)	
Defendants.	)	

Job No. 181268

I, DAN H. KARASIC, M.D., state that I have read the foregoing transcript of the testimony given by me at my deposition on May 18, 2023, and that said transcript constitutes a true and correct record of the testimony given by me at said deposition except as I have so indicated on the errata sheets provided herein.

_____
DAN H. KARASIC, M.D.

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STATE OF INDIANA
COUNTY OF HENDRICKS

I, Debbi S. Austin, a Notary Public in and for said county and state, do hereby certify that the deponent herein was by me first duly sworn to tell the truth, the whole truth, and nothing but the truth in the aforementioned matter;

That the foregoing deposition was taken on behalf of the Defendants; that said deposition was taken at the time and place heretofore mentioned between 12:00 p.m. and 5:52 p.m.;

That said deposition was taken down in stenograph notes and afterwards reduced to typewriting under my direction; and that the typewritten transcript is a true record of the testimony given by said deponent;

And thereafter presented to said witness for signature; that this certificate does not purport to acknowledge or verify the signature hereto of the deponent.

I do further certify that I am a disinterested person in this cause of action; that I am not a relative of the attorneys for any of the parties.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal this 22nd day of May, 2023.

My Commission Expires:
July 13, 2023

Job No. 181268